

THANE DISTRICT GAZETTEER



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MAHARASHTRA STATE GAZETTEERS



Government of Maharashtra

THANE DISTRICT (REVISED EDITION)

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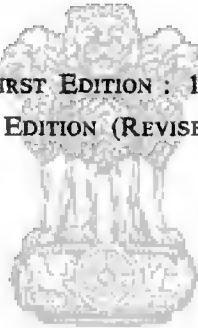
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PREFACE

THE THANE DISTRICT GAZETTEER was first published in 1882 in two volumes of which one volume was brought out in two parts. It was edited by Mr. James M. Campbell, I.C.S. This revised edition of the Thane District Gazetteer has been prepared by the Gazetteers Department, Government of Maharashtra under the guidance of an Editorial Board. The following were the members of the Editorial Board :—

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Executive Editor and Secretary, Member-Secretary.

The Editorial Board is being reconstituted now.

Most of the work of this volume was done during the tenure of
Dr. B. G. Kunte, former Executive Editor and Secretary.

My thanks are due to Dr. V. N. Gurav, M.A., PH.D., Deputy Editor ;
Shri M. H. Ranade, B.A., Shri P. N. Narkhede, M.COM., Shri S. K.
Khilare, B.COM., LL.B., and Smt. M. S. Modikhane, M.A. (Research
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(Research Assistants) for their assistance in the publication of this volume. I am also thankful to the other members of the staff for their association in the preparation of this volume.

I will be failing in my duty, if I do not express my thanks to Dr. P. N. Chopra, M.A., PH.D., Editor, Central Gazetteers Unit, Department of Culture, Ministry of Education, Government of India, New Delhi, as also the editorial staff of the unit for their effective role in planning and co-ordinating the work of preparation of the District Gazetteers. The unit scrutinized the draft of this volume with great care and made several helpful suggestions with a view to improving the standard and quality of the publication. It may also be mentioned here that the Government of India pays a sum of Rs. 44,000 towards the compilation and Rs. 30,000 towards the printing cost of this volume, which forms a portion of the expenditure incurred on compilation and printing of the District Gazetteers. The typed manuscript of this Gazetteer was sent for printing on 25th August 1977 after approval of Central Gazetteers Unit, Government of India.

Shri R. B. Alva, Director, Government Printing, Stationery and Publications, Bombay and Shri B. Bracken, Manager, Government Central Press, Bombay, as also the other technical and managerial staff deserve my thanks for the execution of the printing work of this volume.

Many are the officials and non-officials who helped by supplying information on various points without whose help the execution of this work would have been difficult. To them all my thanks are due.

K. K. CHAUDHARI,

Executive Editor and Secretary.

BOMBAY :

Mahashivaratri

22 February 1982.

GENERAL INTRODUCTION

AS EARLY AS 1843 an attempt was made to arrange for the preparation of Statistical Accounts of the different districts of the Bombay Presidency. The Government called for reports from the Collectors giving the fullest available information regarding their districts. However the matter does not seem to have been pursued any further. It was in 1867 that the Secretary of State for India desired the Bombay Government to take concrete steps for the compilation of a Gazetteer of the Presidency on the model of the Gazetteer prepared during that year for the Central Provinces. The Government of Bombay then requested some of its responsible officials to submit a scheme for carrying into effect the orders of the Secretary of State, and, in 1868, appointed the Bombay Gazetteer Committee to supervise and direct the preparation of the Gazetteer. After a few organisational experiments the responsibility was finally entrusted to Mr. James M. Campbell of the Bombay Civil Service, who commenced the compilation in 1874 and completed the series in 1884. The actual publication of these volumes was, however, spread over a period of 27 years between 1877 and 1904 in which year the last General Index Volume was published.

The Thane District Gazetteer was published in this series in 1882 in two volumes, of which one volume was brought out in two parts. These volumes were compiled by the Officers belonging to the Civil Services and edited by Mr. James M. Campbell.

Though a Gazetteer literally means only a geographical index or a geographical dictionary, the scope of this particular compilation was much wider. It included not only a description of the physical and natural features of a region but also a broad narrative of the social, political, economic and cultural life of the people living in that region. The purpose which the Gazetteer was intended to serve was made clear in the following remarks of Sir William Hunter, Director General of Statistics to the Government of India, when his opinion was sought on a draft article on Dharwar District in 1871.* He said—

“My own conception of the work is that, in return for a couple of days reading, the account should give a new Collector, a comprehensive, and, at the same time, a distinct idea of the district which he has been sent to administer. Mere reading can never supersede practical experience in the district administration. But a succinct and well-conceived district account is capable of ante-dating the acquisition of such personal experience by many months and of both facilitating and systematising a Collector's personal enquiries But in all cases a District Account

**Gazetteer of Bombay Presidency, Vol. I, Part I (History of Gujarat), p. vii.*

besides dealing with local specialities should furnish a historical narration of its revenue and expenditure since it passed under the British rule, of the sums which we have taken from it in taxes, and of the amount which we have returned to it in the protection of property and person and the other charges of Civil Government."

The Gazetteer was thus intended to give a complete picture of the district to men who were entire strangers to India and its people but who as members of the ruling race carried on their shoulders the responsibility of conducting its administration.

The Gazetteer of the Bombay Presidency had 27 volumes, some split up into two or three parts, making a total of 35 books including the General Index Volume which was published in 1904. Some of the volumes were of a general nature and were not confined to the limits of a particular district. The other volumes dealt with various districts of the Presidency and with what were then known as Native States attached to the Bombay Presidency.

The scheme of the contents was more or less the same for all the District Volumes though the accounts of particular items varied considerably from district to district. Information was collected from Government offices and, in respect of social and religious practices, from responsible citizens. Eminent scholars, experts and administrators contributed articles on special subjects.

This Gazetteer compiled over many decades ago had long become scarce and entirely out of print. It contained authentic and useful information on several aspects of life in a district and was considered to be of great value to the administrator and scholar and the general reader. There was a general desire that there should be a new and revised edition of this monumental work. The then Government of Bombay, therefore, decided that the old Gazetteers should be revised and published, and entrusted the work of revision to an Editorial Board specially created for that purpose in 1949. This new edition has been prepared by the Gazetteers Department under the advice of the Editorial Board.

In the nature of things after a lapse of many decades after their publication, most of the statistical information contained in the old Gazetteers had become entirely out of date and had to be dropped altogether. In this edition an attempt has been made to give an idea of the latest developments whether in regard to the administrative structure or the economic set-up or in regard to social, religious and cultural trends. There are portions in the old Gazetteer bearing on archaeology and history which have the impress of profound scholarship and learning and their worth has not diminished by the mere

passage of time. Even in their case, however, some restatement is occasionally necessary in view of later investigations and new archaeological discoveries by scholars, and an attempt has been made to incorporate in this edition, the results of such subsequent research. The revision of old volumes has, in fact, meant an entire re-writing of most of the chapters and sections. In doing so, statistical and other information is obtained from the relevant departments of Government and articles on certain specialised subjects are obtained from competent scholars.

In this dynamic world, circumstances and facts of life change, and so do national requirements and social values. Such significant changes have taken place in India as in other countries during the last half a century, and more so after the advent of Independence in 1947. The general scheme and contents of this revised series of Gazetteers have been adapted to the needs of altered conditions. There is inevitably a shift in emphasis in the presentation and interpretation of certain phenomena. For example, the weighted importance given to caste and community in the old Gazetteer cannot obviously accord with the ideological concepts of a secular democracy, though much of that data may have considerable interest from the functional, sociological or cultural point of view. What is necessary is a change in perspective in presenting that account so that it could be viewed against the background of a broad nationalism and the synthesis of a larger social life. It is also necessary to abridge and even to eliminate, elaborate details about customs and practices which no longer obtain on any extensive scale or which are too insignificant to need any elaboration. In the revised Gazetteer, therefore, only a general outline of the practices and customs of the main sections of the population has been given.

Every attempt has been made to incorporate as up-to-date information as possible. However, in a monumental work like this, a time-lag between the date of collection of information and its publication is inevitable. The latest statistics of various subjects have, therefore, been furnished in the form of tabulated data in the Appendix in this volume. It has also been decided to issue Statistical Supplementaries to the parent volume from time to time. The Supplementaries will furnish tabulated statistics pertaining to the important subjects during the subsequent years.

An important addition to this edition is the Directory of Villages and Towns given at the end which contains, in a tabulated form, useful information about every village and town in the district. The district map given in this edition is also fairly large and up-to-date.

The Gazetteers are being published in two series, viz., General series and District series.

(1) *General Series*.—This comprises volumes on subjects which can best be treated for the State as a whole and not for the smaller area of a district. As planned at present, they will deal with Geography, Fauna, Maharashtra—Land and its People, History, Language and Literature, Botany, Public Administration and Places of Interest.

(2) *District Series*.—This contains one volume for every district of the Maharashtra State. The information given in all volumes follows the same pattern, and the table of contents is more or less the same for all the districts.

K. K. CHAUDHARI,

Executive Editor and Secretary.

BOMBAY :

Mahashivaratri

22 February 1982.



THANE



CHAPTER 1—GENERAL

GEOGRAPHY *

THANE, THE NORTHERN-MOST DISTRICT OF KONKAN, LIES ADJOINING the Arabian sea in the north-west of Maharashtra State. It extends between 18°42' and 20°20' north latitude and 72°45' and 73°45' east longitude. Its northern limits adjoin the Union territories of Dadra, Nagar Haveli and the State of Gujarat while the districts of Nasik and Ahmadnagar are to its east, Pune to the south-east, Kolaba to the south and Greater Bombay to the south-west.

Geographically, forming part of the Konkan lowlands, it comprises the wide amphitheatre like basin of the Ulhas and the more hilly Vaitarna Valley together with plateaus skirting the Sahyadrian scarp.

The district covers an area of 9,553.0 square kilometres; it had, according to the 1971 census figures, a population of 22,81,664. Though it covers only three per cent of the surface area of Maharashtra, its population accounts for 4.52 per cent of the State population. This population of the district is distributed among twenty-four towns and 1,588 inhabited villages.

Administrative evolution : The territory now comprising Thane district was, in 1817, a part of North Konkan district, with its headquarters in Thane. Since then, it has undergone considerable changes in its bounding limits. In 1830, the North Konkan district was expanded by adding parts of South Konkan district and in 1833 was re-named Thane District. In 1853, the three sub-divisions of Pen, Roha and Mahad together with Underi and Revdanda agencies of Kolaba were formed into the sub-collectorate of Kolaba, under Thane, and ultimately were separated to become an independent district in 1869. In 1866, the administrative sub-divisions of Thane were re-organised and re-named : Sanjan was named as Dahanu, Kolvan as Shahapur, and Nasrapur as Karjat. Wada Peta was raised to the level of a taluka. Uran Mahal separated from Salsette in 1861 was

* The section on Geography is contributed by Prof. R. Arunachalam, Department of Geography, University of Bombay, Bombay.

placed under Panvel. Panvel, together with its mahals of Uran and Karanja, was transferred to Kolaba district in 1883 and Karjat was also transferred in 1891. A new mahal with Bandra as headquarters was created in 1917 and in 1920 Salsette was divided into two talukas — North Salsette and South Salsette. South Salsette consisting of eighty-four villages was separated from Thane District and included in the newly created Bombay Suburban district. North Salsette was made a mahal under Kalyan taluka in 1923 and re-named as Thana in 1926. Kelve-Mahim was re-named as Palghar. Thirty-three villages of the Bombay Suburban district were transferred to Thane district in 1945 and fourteen of them were re-transferred to the Bombay Suburban district in 1946 when the Aarey Milk Colony was constituted. In 1949, Jawhar State was merged with Thane district and made into a separate taluka. As many as twenty-seven villages and eight towns from Borivali taluka and one town and one village from Thane taluka were transferred to the Bombay Suburban district in 1956 when the limits of Greater Bombay were extended northwards in Salsette. In 1960, following the bifurcation of the bilingual Bombay State, forty-seven villages and three towns in the taluka of Umbargaon were transferred to Surat district in Gujarat and its remaining twenty-seven villages were first included in Dahadu and later in 1961 made into a separate mahal, Talasari. In 1969, the taluka of Kalyan was divided into two — Kalyan and Ulhasnagar.

Present administrative set-up: For administrative purposes, the present district is divided into twelve talukas and one mahal. The area, number of inhabited villages and towns and the population are shown in the table No. 1 as per 1971 census.

Boundaries: The administrative boundaries of the district have undergone considerable changes due to frequent revision, for a variety of reasons, such as the split-up of the original North Konkan district, reorganisation following the creation of Maharashtra and the more recent expansion of the limits of Bombay City. As a result, the boundaries of the district both in the north and the south reflect administrative convenience rather than distinct geographical features. However, to the east, the scarp face of the Sahyadri constitutes a well-demarcated boundary.

Starting from the Arabian sea-shore to the north of the village Jhari in Talasari mahal, the boundary runs eastwards and northwards in general, keeping the Bulsar district of Gujarat to its north till reaching past the village of Upalat in the hills, whereafter the boundary turns initially south till reaching past the hill-fort of Gambhirgad at an elevation of 995 metres and then east along the southern limits of Nagar Haveli till reaching the village of Bopdari in Mokhada taluka. Then, for a short distance of two kilometres, the

boundary runs north, keeping Gujarat to its north, till descending to the bed of the Vag river. Thereafter, the boundary runs south, along the stream course upstream, separating initially the State of Gujarat and subsequently the district of Nasik. To the south-east of the village Vangani in Mokhada taluka, the boundary turns east, up along a source stream of the Vag, and follows it till reaching the village Dandwal and the Gonda Ghat in the Sahyadri, whereafter the boundary roughly follows the crest of the scarp edge of the Ghats. The boundary then runs, following the main ridge and descending here and there to the passes across the ridge, the widest and the best used of them being the Thal Ghat, across a deep gorge, in which the Vaitarna winds its way through. The boundary, so far running southwards, gradually turns south-east, past Thal Ghat, till reaching a point where the Kalsubai range branches off to the east from the main ridge, close to the peak of Kulang on the tri-junction between Thane, Nasik and Ahmadnagar districts. The boundary continues with the same trend for another sixty kilometres alongwith the boundary of Ahmadnagar district till reaching the peak of Harishchandragad and the Malsej ghat to its south. Thereafter, the boundary turns south along the scarp crest at an elevation of 1,250 metres keeping the district of Pune to its east. Here, along the boundary, lie many Maratha fortifications on the crest level plateaus, picturesquely overlooking the Konkan lowlands like Machhindragad, Gorakhgad and Sidgad. Just south of Sidgad, the boundary descends the scarp edge into the Konkan lowland, and cuts across the rolling country westwards in general till reaching the stream course of the river Ulhas; in this section, the boundary keeps Kolaba district to its south. For a short distance, the boundary follows the Ulhas upstream, once again turns west, cutting the Bombay-Pune railway, south of Vangani railway station. It then ascends the Matheran ridge, and follows its crestline north-westward from Chanderi fort, till reaching Malanggad, to once again descend to the low-lying Panvel flats. Here, the boundary runs west, crosses the Bombay-Pune road south of Dahisar village, ascends a coastal hill ridge, follows it south till reaching the village Shahabad on Panvel creek, emptying into the Thane creek. Then, the boundary runs along the Thane creek, jumps across it, south of Thane City, running west, separating the district from the Mulund ward of Greater Bombay. A few villages in the north-east of Salsette island to the north of the central hills lie within this district. The boundary runs westwards across the hills, descends to the lowland, north of Borivali, crosses the Bombay-Baroda-Delhi railway, south of Mira road station and continues west till reaching the Arabian sea, south of Uran village.

Relief features : From the steep scarps of the Sahyadri in the east, the land of the district falls through a succession of plateaus in the

north and centre of the district to the Ulhas valley in the south centre. These lowlands are separated from the coastal flats by a fairly well-defined narrow ridge of hills that runs north-south to the east of the Thane creek, maintaining a remarkable parallelism to the shores at a distance of about six to ten kilometres from the shores. A number of isolated hills and spurs dot the entire district area, so much so that the district as a whole in its aspects is hilly.

The Sahyadri: The western steep slope of the Sahyadri, falling from the crestal plateaus and high peaks, as well as the foot-hills lie within the limits of the district. In the northern sections, to the north of the Nana ghat through which the Kalyan-Junnar road runs, the Sahyadri has a north northwest-south by south-east trend, but south of it, the Sahyadri swerves sharply to the west to develop a north-east-southwest trend till the southern limits of the district. These local trends stand in sharp contrast to the regional north-south trend of the Sahyadri and is due to recession of the scarp eastwards under the active headward erosion of the swollen monsoon torrents, Kalu, Bhatsai and their source tributaries.

Passes: From the northern limits, adjoining the Gujarat border, till reaching the Thal Ghat, the Sahyadri is subdued in relief, and nowhere, elevations exceed 600 metres. There is no well-marked physical barrier between Nasik and Mokhada taluka of this district and a number of ghat passes have been traditionally used as routes between villages in the plateau and this district. Opposite Mokhada are the two hills — Vatvad and Basgad — that form the west end of the Anjaneri and Tryambak ranges (of Nasik District); these spurs running east-west form the water-shed between the Vaitarna and Damanganga drainages. North of Basgad is the Amboli pass leading to Tryambak from Mokhada and further north is the Gonda ghat, through which the Mokhada-Peint road runs. About three to five kilometres east of Amboli ghat are two more passes — the Chandryachimet and the Humbachimet. Still further south is the wide Shirghat used by the Khodala-Tryambak road to gain a fairly easy access to the Desh through relatively gentle gradients. Then, the line is broken by the deep gorge-like valley of the Vaitarna behind which rises the prominent peak of the Vavihir. South of the Vaitarna valley and to the north of the Thal ghat stands the fort of Balvantgad. South of the Thal ghat (through which the Bombay-Bhusaval railway and the Bombay-Agra road run), at an elevation of 550 to 600 metres, the Sahyadri throws at intervals, narrow rugged spurs far across the Konkan plain and stretches in an irregular line, as a mighty wall, its sheer plain cliffs facing this district broken by narrow horizontal belts of grass and forest and its crests rising in places in isolated peaks and rocky bluffs. From Kasara, at the foot of the Thal pass, the large

flat-topped range to south-east is *vaghacha pathar* or the tiger's terrace. The pointed funnel-shaped peak on its shoulder is Kalsubai (in Nasik district) and the less pointed peaks to the south of the Thal ghat along the district boundary are Alang and Kulang. Several passes through which foot-paths and mule-paths run lead to these hills. The first is the Pimpri pass, a little to the north of the *vaghacha pathar* leading to the Kalsubai, Alang, Kulang and a lesser peak, the Bhavani. Further south is the great mass of Ajaparnvat; from here, the Sahyadri runs south-eastwards to terminate in the Harishchandragad peak and the Malsej pass. From Malsej, the Sahyadri turns west as far as Nana pass which is close to the south of the hill-fort of Bahirgad and north of the hill-fort of Jivdhan. From the Nana pass, the main range runs south for about eight kilometres reaching the village of Palu. Close-by lie the difficult passes of Don and Tringadhara. The Sahyadri now runs a little south of west leading to three conical hills, the Machhindragad, Gorakhnath and Neminath. The central peak of Gorakhnath is fortified and Machhindragad is quite inaccessible. Further south are the Avapa pass and Sidgad, a fortified peak on a high plateau on the south-eastern limits of the district. Close to it runs a path leading to the peak of Bhimashankar in Pune district. Further south, the Sahyadri runs into districts of Kolaba and Pune.

Off-shoots: A number of spurs shoot off from the Sahyadri westwards into Thane lowlands and plateau. Most of them are narrow, rarely more than two kilometres wide, with steep slopes on either side and often rising to considerable levels, rather abruptly, above the floor level of the plateau. Many of them carry on their crests, small plateaus, often forest-clad and of difficult access. This type of a hill range country, with intervening deep gorges of stream valleys, is at its best seen in the central parts of Wada and Jawhar talukas; it presents a memorable picturesque landscape clothed in green soon after the monsoon.

Besides the main range and the western spurs of the Sahyadris, a number of hills and isolated peaks dot the whole countryside. The long axes of most of these ranges run north-south; they appear to be the erosional remnants of dyke ridges which have withstood the denudational processes that have planed the rest of the region. None of these outlying spurs and ranges rise higher than the main Sahyadri. The loftiest are the Takmak (609 metres), the Turgar (662 metres), and the Kamandurg (652 metres) in the east, Gambhirgad (995 metres) in the north and Bawa Malang (791 metres) in the south. Most of the heights of these spurs were formerly fortified and some of them were celebrated places of strength but the fortifications are now in utter ruins though they still add to the picturesque and historic interest of the hills

Coastal range: The most rugged terrain of the district is a belt about 15.25 kilometres broad that runs parallel to the coast at a distance of 15-20 kilometres from the shore. In the south of these tracts are the hills of Salsette island that form the core and rise to the highest elevation of 462 metres at Kanheri and Avaghad and further north in Kamandurg and Tungar hills of Bassein.* North of Tungar is a cluster of hills of which Baronda, Jivda and Nilemore are the most marked peaks and on an offshoot of Takmak range to the east of Tansa are two heights known as Kaland Dhamni. To the north-east across the Tansa rises the steep peak of Takmak with its two fine basaltic horns.

Parallel to this western coastal range that runs from Kanheri to Takmak, about fifteen kilometres further east, runs another line of hills from Bhivandi, north-west almost right up to the Manor on the Vaitarna and is breached into two by the Tansa river. In this line, about twelve kilometres north of Bhivandi rising gently from the west is the hill of Dyahiri (525 metres) and across a saddle-back ridge lies the old Maratha fort of Gotara (584 metres) on a peak that falls sharply to the Tansa river just above Vajrabai. Across the Tansa, about fifteen kilometres further, the Keltan hill is separated by a narrow valley from Takmak. This range ending in Jagmandi peak and running south to north together forms a barrier turning the Vaitarna many kilometres north of its course. To the west, between the railway line and the Surya river, the unbroken chain of hills whose chief peak is Kaldurg, stretches about twenty-five kilometres parallel to the coast carrying on its top three hill-forts: Tandulwadi at the extreme south, Kaldurg opposite to Palghar railway station and Asava near Boisar. In the south-west of the Palghar taluka is the Pophli hill. The coastal range continues north into Dahanu taluka as far north as Vasa; here the highest peak is Barad. This range slopes relatively gently on the west face but falls sharply to the east with steep slopes and sheer rocky cliffs. North of Varoli, there are only a few hills of moderate heights, the chief of them being Indragad in the extreme north. Near Mokhada and Jawhar there are few hills of considerable size of which the Mahalaxmi and Gambhargad are the highest.

Interior hills: Further inland to the north-east of Manor is the semi-circular hill of Pola with its peaks of Adkilla and Asheri. About thirteen kilometres south of Manor, across the Vaitarna from Keltan and Takmak stands the solitary fortified hill of Kohoj rising abruptly from the plains and visible over considerable distances from all around.

* Bassein is now known as Vasai.

Between this rugged terrain and the Sahyadri in the east, the country is comparatively level, broken by few hills. Of these, the western-most hill in the southern parts of Wada is Davja with its two spurs. Smaller hills in Wada are Kapri in the east, Indagaon hills in the north-west, and the Ikna and Domkavla hills in the south-east border. About seven kilometres north-east of Shahapur (Asangaon station) the long flat-topped mass of Mahuli (849 metres) rises like a great block of masonry. The sides of the hills are richly wooded but the laterite-capped top has only a poor stunted vegetation mostly of *hirda* (*Terminalia chebula*). North of this, Bhopatgad is crowned with a fort which overlooks Kurlod on the north of the Pinjal river and rises about 170 metres above the general level of the neighbouring high country. From the east, the ascent is about 170 metres from the west; it is about 500 metres for its slopes form the face of the Mokhada tableland.

The southern hills: In the south, the country is far from level. On the west, the Parsik range runs from Panvel creek northwards and ends abruptly with a cliff face overlooking the Ulhas near Mumbra. Its highest elevation is Dophora peak (405 metres). The curved range of Chanderi stretches from the long level back of Matheran, west to the quaintly cut peaks of Tavli and Bava Malang (791 metres) along the southern limits of the district. About twenty kilometres to the north-east, near Badlapur is the Muldongri hills with a temple of Khandoba at its top.

The plateaus: Between the coastal range, the hills and Sahyadri scarp the whole country is a succession of plateaus descending from the Sahyadri, step by step, and separated from the next lower down with a well-defined scarp face. In the north-east at an elevation of about 300-400 metres is the Jawhar-Mokhada plateau that descends down further west to the Wada plateau at an elevation of about 150-300 metres. The Wada plateau is separated from the coastal lowlands of Palghar and Dahanu by the double range of hills that runs about 15-25 kilometres from the coast, enclosing within it the Surya and the Vaitarna valleys. South-east of the Wada plateau is the Shahapur upland at an average elevation of 300 metres which in the west falls to the Bhivandi lowland and in the south to the narrowly entrenched Bhatsai-Kalu valleys. In the south-east of the district is the Murbad plateau at an elevation of less than 100 metres.

The plateau country locally is dotted with low mounds and lades that are best seen along the railway line from Kalyan to Kasara.

The coast: To the west, the district of Thane has a fair coast-line, about 100 kilometres long. The coast naturally falls into two sections, to the north and to the south of the Vaitarna estuary. To

the south, the great gulf that runs from the north of Kolaba to Bassein, must in recent time have stretched far further inland than it now stretches. Idrisi's description of Thane (1153 A. D.) that it stands on a great gulf where vessels anchor and from which they set sail, may have been adequately deep when the sea filled the marsh through which the Thane creek now runs towards Bhivandi and Kalyan and where the wide tracts are now half dry. As late as the beginning of the 19th century, Salsette comprised a number of islands : Salsette proper with its hill core, Trombay, the islands of Juhu, Versova, Uttan-Dongri and Rai Murdha. Bombay was a group of seven islets ; and the villages around Bassein-Sopara nearby as far as within three to five kilometres of the Vaitarna estuary formed the islands of Bassein. The backwater that separated this strip of coast from the mainland opened south-westward into the Bassein creek forming the Sopari creek on which stood the celebrated fort of Sopara of Ptolemy. The appearance of the ground here leaves little doubt that in-between the Vaitarna and Ulhas mouths, islands were formed once by the branches of the Bassein creek that ran up to Bhivandi. In the south, the Thane creek was once a broad belt of sea with a number of islands like the Gharapuri, Butcher island and Karanja, dotting it. Many of these islands have now become a continuous mass of land extending as peninsulas from the mainland. On the whole, the coast here presents the appearance of considerable submergence. However, geologically the coast is not without its variety. The present coast from Bandra to Dahanu is a constant alternation of bays and rocky headlands with sand spits, dunes and bars in protected reaches behind headlands. Along the coast, in the neighbourhood of Manori and further north, as far as Dahanu, raised beaches made of littoral concrete have been recognised, running north-south close to the present shores and not very high above the present sea-level. On the other hand remnants of a submerged 'khair' forest have been traced on the Thane creek side of Salsette and Bombay harbour while carrying out the dredging operations for developing Bombay harbour and completing new docks during the end of the last century.

North of the Vaitarna estuary, the shores are flat, with long sandy beaches and spits running into muddy shallows ; the creeks and streams are at best small inlets divided by wide wastes of salt marshes, tracts of slightly rising ground in-between covered by palms, fruit orchards and casuarina. This landscape stretches to the foot of the hills that lie a few kilometres away and rise abruptly to sufficiently high elevations to mask off the flatness of the low ground. All along the coast, the dreary salt marshes are being steadily reclaimed as salt pans and rice flats.

Islands: There are a number of islands along the sea-margin of the district. The most important of these is the group of Bombay islands, overlooking Uran and Panvel of Kolaba district on the mainland. Bombay is reached through the larger island of Salsette which is separated from the mainland by the Ulhas estuary and the Thane creek but is connected over reclaimed land with the City. The Bombay harbour bay has a few rocky islands of which the most significant are Karanja, Gharapuri better known as Elephanta and the Butcher island. In the Bassein taluka, at the entrance to the Vaitarna estuary lies the island of the Arnala containing a well-preserved fort called Sindhudurg with Muslim remains and an old temple inside.

Rivers: The rivers of the district mainly belong to two river streams of the North Konkan, namely the Ulhas and the Vaitarna, both draining the rainy western slopes of the Sahyadri that lie between the Bhore and the Thal Ghats. There is much sameness in their courses. Dashing over the black scarps of the Sahyadri, their waters gather in the woods at the base of cliffs and along rocky deep cut channels force a passage from among the hills. In the plains, except where they have to find their way round some range of hills, their courses lie westward between steep banks from ten to thirty feet high over rocky beds crossed at intervals by lines of trap dykes. During the rains they are heavily flooded but in the fair season the channels of most of them are chains of pools divided by walls of rock. After they meet the tide from twelve to fifty kilometres from the sea, they wind among low mangrove-covered salt marshes along channels of mud with occasional bands of rock in many places, bare at low tide and at high water navigable for country-craft of five to fifty tons.

The Vaitarna: The Vaitarna, the largest of Konkan rivers, rises in the Tryambak hills in the Nasik district, opposite the source of the Godavari, and enters Thane at Vihigaon near Kasara, after passing through a deep gorge while descending from the plateau top to the Konkan lowland. For about forty kilometres the Vaitarna flows west through a deep defile among high hills. From Kalambhai at the eastern border of Vada, the river flows for about thirty kilometres west across a more or less level country, till near the ancient settlement of Gorha, the great spur of the Great Takmak range drives its course north-west for about sixteen kilometres till it flows past the settlement of Manor. Within three kilometres of Manor, the stream meets the tidal wave and is navigable for small crafts. Near Manor, the river after skirting the northern spur from Takmak, flows initially south-west for about ten kilometres and then to the south for twenty kilometres before sharply turning to the right, and for the last twelve kilometres flow west to enter the sea through a wide estuary off Arnala. In the last stretch of thirty kilometres the Vaitarna passes

through a country of great beauty in-between two ranges and has a fine broad river which in many places has a good depth of water and a fairly flat-bottomed valley with meander terraces on either side.

The sacredness of its source so close to the holy Godavari, the importance of its valley as one of the earliest trade-routes between the east and the central Deccan and the beauty of the lower reaches of the river valley brought to the banks of the Vaitarna some of the earliest Aryan settlers. It is mentioned in the *Mahabharata* as one of the four sacred streams and Ptolemy had the impression that the Vaitarna and Godavari were one and the same river.

The Vaitarna is 154 kilometres long and has a drainage area that practically covers the entire northern sections of the district. It has a number of tributaries, the most important of which are the Pinjal, the Surya and the Tansa.

Pinjal: The Pinjal rises near Nasher in Mokhada and falls into the Vaitarna at Alman in Vada taluka. About fifteen kilometres north-east of Alman, it is joined from the left by the Lohani river that rises in the Shirghat section of the Sahyadri.

About twenty kilometres west of this confluence near Karajgaon and three kilometres upstream of Manor, the Daherja river joins the Vaitarna, after winding its course over a distance of forty kilometres in a rolling plateau. Its source lies to the south-west of Jawhar in low hills.

Surya: The Surya, rising near Bapgaon, flows southwards and west till it is joined on its right bank by the Susari river, rising near Gambhirgad and flowing south. The combined flow runs south between the two coastal ranges till the Surya falls into the Vaitarna near Khamloli about twelve kilometres south-west of Manor.

Tansa: The Tansa is the only left bank tributary of the Vaitarna, rising near Khardi railway station and having a westerly flow; it joins the Vaitarna to the south of the Takmak hills just before the latter enters the sea. The bed of this river has a number of hot water springs especially around Akloli, Ganeshpuri and Vajrabai. The river is tidal for many miles. In its upper reaches, the river has been dammed to develop a water reservoir, the Tansa lake, to supply the city of Bombay with drinking water.

The Ulhas: The Ulhas rises to the north of Tungarli near Lonavala, has initially a southerly flow and then west for a short distance before it descends the scarp slopes of the Sahyadri near Bhore ghat through a succession of two leaps of water-falls each about 80-90 metres in height. Then for a short distance of about ten kilometres it flows north through a deep, narrow gorge that is picturesque and extremely well wooded with sheer cliff walls that in many sections fall through a height of 300 metres. The river flows

past the celebrated caves of Kondane and emerges out into the plains just east of Palasdhari railway station. Then it has a gentle northerly flow and enters this district in the southern border near Vangani railway station. In this district, the river has a northerly course skirting the Matheran ridge initially through Ulhasnagar taluka until near Kalyan it is joined by the combined flow of the Kalu and the Bhatsai and the river turns west to enter through a gap to the north of Parsik range into the Thane creek. Here, the bulk of the flow turns north to the north of Salsette island and gradually broadens into an estuary about three kilometres wide where it falls into the sea at Bassein. In this section, between Bassein and Thane, the river flows through a highly varied hill and forest country and is known as the Bassein creek. Ptolemy knew this river as the Binda river, probably for the name Bhivandi.

The river has many tributaries, the two most important of them being the Kalu and the Bhatsai. It has practically no tributary joining it on the left bank, as it skirts the edge of the Matheran range over most of its course.

The Kalu: The Kalu has a westerly course of about eighty kilometres after having its rise in the Sahyadri near Malsejghat. For the bulk of its course, it winds and turns sharply through bends often at right angles in a plateau country probably due to the control by joints in the basalts. Mostly, the river valley is entrenched in-between deep banks. The river is joined by the Bhatsai before it falls into Ulhas just below the railway bridge near Shahad railway station.

The Bhatsai: The Bhatsai rises in the Thal ghat section of the Sahyadri, close to the township of Igatpuri and has a southerly flow initially for about ten kilometres before it turns south-west in-between hills. Near Shahapur, the valley suddenly opens out. It joins the Kalu south-west of Titwala railway station. It has important tributaries, the Kasari on the left bank rising in the hills near Kasara, and the Kumbhari on the right bank rising in the Vada uplands.

The Kamvadi rising in the uplands north of Bhiwandi flows south to join the Ulhas just before the latter turns north to enter the Thane creek and the estuary. The Barvi is another tributary of the Ulhas within the district draining the Murbad plateau westwards and joining it near Badlapur, the Murbadi is its tributary.

Of the less important streams in the district, mention can be made of the Varoli rising in the interior in the Dahanu taluka and flowing north-west for about forty kilometres to join the sea in Bulsar district.

Creeks: All along the coast are found many small creeks, in which tidal waters flood upstream and inundate much low ground; human interference in many cases has helped in converting them into mud

flats. Of these, mention can be made of the Bhiwandi, Chinchani, and Dahanu creeks. The Sopara creek in the bygone days was an important artery of sea-traffic bringing Arab dhows and Greek sailing vessels to the now forgotten Sopara, that was a celebrated port. The Thane creek is not a creek in the true sense, but a depression engulfed by the sea. Its shallowest point is just south of Thane where a ridge of rocks affords the foundation for the railway bridge.

Lakes : The district has no natural lakes, but a number of artificial lakes have been constructed during the last few decades mainly to supply water to the city of Bombay. The Vaitarna lake on the river Vaitarna has been formed behind a huge dam and feeds the city with drinking water. Another huge lake is the Tansa lake across the Tansa river formed in the hills north of Bhiwandi. A lake reservoir is now being developed in the upper Bhatsai, north of Shahapur. Small lakes also exist near Thane, Kalyan, Bhiwandi and Vada.

Hot springs : Many mineral water springs are known to occur within the district, particularly in the stream-beds of the Tansa, the Varoli, the Surya and the Vaitarna. In the Bassein taluka, near the villages Akloli, Ganeshpuri, Nimbavli and Vajrabai are found several hot springs in the bed of the river Tansa. The temperature of water ranges between 42°C. and 55°C. and bubbles of gas with strong sulphur smell rise from these waters. The waters are mildly saline, containing mainly sodium, calcium, chlorides and sulphates. Three Vada villages have also hot springs, near the confluence of the Pinjal with the Vaitarna about two kilometres from Pimplas.

Regional Units : From the foregoing review of the physical features and drainage, it is amply evident that the relief of Thane district shows an immense variety. The district area forming part of the Deccan Trap country, west of the Sahyadri, the main basic lava flows, horizontal and undisturbed, have given rise to a succession of broad plateau levels, descending from the scarp of the Sahyadri one below the other. Numerous dyke intrusions, within the lava flows, on differential erosion stand out, often over long distances, as ridges, most of them running north-south, parallel to the coast, but in cases east-west as in Vada and Shahapur. These ridges rising by even slopes from the plateau floor have sharp crest lines unlike the flat, mesa-topped ridges developed by the basic lava flows. Magma differentiations, mostly of acidic types, and breccia cones along the coast have added variety through the numerous low hillocks and the craggy skyline profile. Faulting, perhaps, along a north-south line is responsible for the depression filled in by the Thane creek in the south, and the lower Vaitarna, Surya valleys further north.

The Vaitarna and the Ulhas drainages due to the huge run-off following the heavy downpours of the monsoon on the western scarp

slopes of the Sahyadri, turn into swift torrents carrying enormous amounts of silts and alluvium to the sea. The entire Ulhas basin, focussing on Kalyan from the north, east and south through the valleys of the Bhatsai, Kalu and upper Ulhas, forms a huge fan-shaped basin, pushing the Sahyadrian scarp eastwards. Below Kalyan, the Ulhas valley is a vast alluvial flat, inundated over considerable distances during high tides. The Ulhas basin thus offers a sharp contrast to the Vaitarna valley that is deeply entrenched in a plateau and hill country.

To this huge variety of topography, further colour is added by a variegated human response. The hilly forested interior, particularly in the north, is still the home of tribals, mostly Thakurs, Varlis, Katkaris and Kolis. In the uplands occupied by these people, forests dominate the economy, but locally the valley bottoms, with pockets of rich soils, produce quality rice. In contrast, the coastal lowlands produce a rich variety of farm produce—rice, hay and fodder, vegetables, flowers and fruits—apart from accounting for a huge haul of sea-fish, all of which enter the extensive urban market of Bombay city. The Ulhas valley as a whole, and the lower valley, or what is known as the Kalyan basin, in particular forms the natural routeway through which is streamlined the bulk of traffic emanating from and converging into the city. The physical proximity and contiguity as well as excellent accessibility have rendered the economy of the Ulhas valley almost entirely subsidiary to the city.

Thus, physical variety reinforced by a heterogeneity of human imprints has evolved contrasting regional landscapes within the district. Traditionally, two regions have been recognised, the *jungle-patti*, the forest-clad, hilly tribal interior; and the *bandarpatti* or the coastal lowlands with a prosperous rice-coconut-cum-fish culture. Recent and current variations in responses, however, necessitate a further division as follows :—

(i) The Sahyadrian region, entirely a forest country.

(ii) The Plateau country, with forested uplands and tilled valley pockets :

(1) Jawhar-Mokhada plateau,

(2) Vada plateau,

(3) Shahapur plateau,

and

(4) Murbad plateau.

(iii) The coastal lowlands of the *bandarpatti*, a belt of market gardening, hay and dairy zone.

(iv) The lower Ulhas valley, comprising the lowlands of Bhiwandi, Kalyan, Ulhasnagar and Thane with a predominantly

urban population, and an economy oriented towards the city of Bombay.

The Sahyadrian region: All along the eastern borders of the district, the towering scarps of the Sahyadri stretch, rising abruptly from the plateau level at an elevation of 300 metres through sheer cliff walls, across a narrow strip of land, barely five kilometres wide. The crest-line distinctly visible from Konkan below carries many peaks and fortresses. The landscape quickly changes, rising rapidly in elevation, and is an alternation of desolate black and bleak cliffs with well-wooded slopes. The terrain is rugged and uneven, with many source streams flowing in deep ravines, separated from each other by shoulders and spurs that carry grass covered level ledges on their tops.

The region receives during the monsoon season a rainfall exceeding 300 cms; hence, the hills are clothed with tropical moist deciduous and semi-evergreen species of vegetation; the forest interior is dense with an undergrowth during the rains and for months after. In the hot weather, the undergrowth dries, larger trees shed their leaves and yet the landscape is far from being bleak. With the flowering of many of the species, the forest turns into a gay red. The main species that recur, are teak, *ain*, *bakul*, mango, amber, *beheda*, *jambul* and *apta*. The forest interior supports wild game. Most of the virgin forest cover has been destroyed over years, except perhaps in inaccessible steep slopes and higher elevations.

From the human point of view, the region is negative in character. Population is scanty and scattered in tiny hamlets that are precariously perched near water-holes that run dry during the hot weather and necessitate tiring journeys over considerable distances to procure even drinking water. The people are almost entirely tribal, Varlis and Thakurs.

Human interest in the region centres round the passes that have acted as Konkan *darwajas* and traditional trade-routes, since the ancient past. The Nana ghat and the Khodala ghat are also used to some extent for road transport across the Sahyadri. The Maratha fortresses, so strategically located overlooking the Konkan lowlands and having access only through deep ravines on the scarps, add a historic grandeur to this region.

The Plateau country: The Plateau country covers the eastern half of the district. It begins where the foot-hills of the Sahyadri abut into the Konkan at an average elevation of about 400 metres and generally slopes westwards, falling in elevation by steps. The Mokhada-Jawhar plateau in the north, the Vada plateau in the west centre, the Shahapur plateau in the middle and the Murbad plateau in the south are included in this region. The Mokhada-Jawhar plateau

at the foot of the Nasik section of the Sahyadri in the north-east is an undulating country at average elevations of 350 to 450 metres and descends on the west by fairly steep gradients to the Vada plateau at a lesser level—about 100 to 150 metres. Separated from the Mokhada-Jawhar plateau by the deeply incised valley of the Vaitarna and further south of it is the Shahapur plateau. It is well defined by the Bhatsai valley to its west and the Kalu valley to its south. It forms a series of levels one below the other between 150 and 400 metres. The Murbad plateau, south of the Kalu valley, is at the lowest level—about 100 metres. Thus, there is a fall in the plateau levels from east to west and north to south, the individual levels being remarkably visible to the naked eye in a traverse from Bombay to Igatpuri, by road; the road runs for a considerable distance on level ground and then over short stretches rises over steep gradients to the next higher level. As far as eye can see, these levels are apparent.

The Mokhada-Jawhar plateau: The rugged and uneven terrain of the Mokhada-Jawhar plateau, extremely well dissected by narrow, steep-sided stream valleys occurs in two levels, the Mokhada region being at a somewhat higher level than the Jawhar region, further west. Areas of flat land, and adequately wide valley bottoms to permit extensive cultivation are extremely limited. In fact, farm lands constitute barely a quarter of the region; forests dominate the landscape, accounting for nearly a third of the land. About an eighth of the land is barren and about a fifth lies under current and other fallows. Permanent pastures and tree crops occupy a small area in the neighbourhood of Jawhar.

The soils are stony and gravelly and infertile. The heavy down-pouring rains of the monsoon period wash away the finer soil particles, reducing the soil to an extremely coarse, open texture. Most of the fields are in the uplands or *varkas* area, and over a good deal of the area, the tillage system is *dalhi*, i.e., sowing the seeds in wood ashes. The main crops of the region is *nagli* (*ragi*); together with other small millets, it accounts for half the tilled hectareage. Rice occupies the valley slopes and valley floors or the lower terraces and accounts for a sixth of the cropped area.

The village in Mokhada-Jawhar plateau is a medium-sized unit, supporting on an average 700 people and located centrally on a level plateau; a number of cart-tracks and paths running over the plateau crest before ascending the adjoining valley slopes, converge on the settlement. It is a fairly compact unit, with well-built tiled houses aligned along one or two streets of caste Hindu Kunbi cultivators. Each main village has a number of hamlets or *padas*, on an average four to six, distributed all around along the edges of the level

plateau, commanding the fairly steep valley slopes that are well wooded.

Very few villages are found on the valley bottom probably because they are too narrow to support a good-sized village and also due to isolation enforced by relief.

Jawhar was a former seat of administration of Jawhar State. Juni Jawhar, a deserted site in ruins, is at the edge of a deep, narrow valley and seems to have been given up in favour of a more central site on the plateau top, along the road. The township has developed as a ribbon on either side of the road, and owes its functional importance to its taluka administration, market centre and timber depot.

The Vada plateau: The Vada plateau, split into nearly equal halves by the east to west flowing Vaitarna, is at a lesser elevation—about 150 metres—and is effectively shut off from the coastal lands by a double coastal range running north-south and rising to more than 500 metres locally. The valley floor is wide enough to permit good tillage. From October to February the climate is unhealthy, fever being rife in every village. Water is fairly abundant along the valleys, though on plateau crests wells run dry during the hot weather, and procuring even drinking water becomes a problem. Rice is the chief crop in the lowlands during the rainy season; *nachni*, *tur* and *vari* are the other crops on the *varkas*. About a sixth of the area is under tillage, while nearly half the area is under forests. In the past, teak from the region used to find a wide market, but with a vast and negligent depletion of the forest-cover, re-forestation has become imperative; young plantations on many of the denuded slopes are slowly increasing.

Here too, half the population is tribal, mainly Varlis, Malhar and Mahadev Kolis and Katkaris. The Katkaris, slimmer and darker than the other forest tribes, are *kath*-makers. They till the uplands, after burning the brush-wood. They quite often sell fire-wood, wild honey and hunt for small forest animals and birds. They live in independent hamlets.

Vada villages are mostly clustered in the Vaitarna and Pinjal valleys; they have fewer hamlets than the villages further east.

Vada is sited on the right bank of the Vaitarna above the confluence of the Pinjal with the Vaitarna. Built on a tank site, it derives its functional importance from administration and its weekly market. Manor, on the new Bombay-Ahmedabad road, is located at a site where the Vaitarna escapes through the hills of the Takmak-Asheri group into the longitudinal valley between the two coastal ranges.

Shahapur plateau: Shahapur plateau is very wild, broken by hills and covered with extensive forests. The northern part, north of Shahapur, consists of long wavy uplands and narrow, long, east-

west running ridges, seamed by steep-sided rocky ravines. The area is drained to the south-west by the Bhatsai and its tributaries. South of Shahapur, the country opens out to some extent, and is drained to the west by the Kalu and its tributaries. Here, the topography permits a wider tillage, unlike the northern parts where it is confined to patches along stream valleys. The climate is very unpleasant, except in the rains with half the area under forests, and a fifth barren in this wild country, the net sown area is reduced to just about a fifth. Rice, *nagli*, *vari* and pulses are the crops. On the level ground deprived of its forest-cover, soil erosion is assuming menacing proportions, leading to a highly denuded stony soil cover that is barren and useless even for poor pasture to grow.

As in Mokhada-Jawhar, villages are sited on flat plateaus with numerous *padas* strung around along the plateau edges and valley sides. The larger villages are strung along the Bombay-Agra road and the Bombay-Igatpuri railway line which traverse the country south-west to north-east between Kalyan and Kasara. Villages in the lower reaches of the Bhatsai valley are not only larger but more nucleated, with fewer hamlets. The villages on the plateau terraces suffer from acute shortage during the hot weather.

The jungle country of Shahapur is a land predominantly of the *jhum*-cultivators — Thakurs — though Varlis and Katkaris are also present in good number. These tribes live in separate hamlets distinct from the Kunbi village.

Shahapur is the route-focus of the region. Sited on the left bank of the Bharangi river, a tributary of the Bhatsai, and on the Bombay-Agra National Highway, Shahapur owes its importance to its administrative function as taluka headquarters, timber and saw mills and forest depot and a weekly market. Cart-making is an industry of local importance.

Kasara, the terminal for the suburban railway service to Bombay, is located at the foot of the Sahyadri, commanding the Thal ghat entry from Konkan to Desh. Khardi, also on the railway and road between Shahapur and Kasara, is a local collection centre for the forest produce.

The Murbad plateau : South of the Kalu river, drained by a number of sub-parallel west-flowing streams occupies the southern part of the district, and occurs at the lowest level — about 100 metres among the plateaus. The only large area of level land is in the east, towards the foot of the Sahyadri. The soil is poor and stony. Uplands are of little value except as supplying brush-wood for manure. Nearly a third of the land tilled is rain-fed ; rice is no doubt the main crop, but *nagli*, *vari* and pulses together are of equal importance. Water is scanty all over the plateau. Villages are comparatively smaller, with fewer

hamlets. They are mostly Maratha villages in the west, Koli and Thakur villages in the east. The region as a whole is difficult of access; the Kalyan-Murbad-Junnar road along the Murbadi valley is of some value in linking the area with the Kalyan region. The area is entirely rural and even the taluka place, Murbad, is a small market centre with about 6,000 people.

The coastal lowlands: The coastal lowlands of Thane form a belt, about ten kilometres wide, of lowlands and flats, seamed by tidal creeks, and are backed by two hill ranges, running north-south, remarkably parallel to each other, and enclosing within the narrow Surya valley in the north and the comparatively wider tidal stretch of the Vaitarna valley in the south. The hill ranges rise on an average to about 200 to 300 metres and present fairly steep slopes towards the coastal lowlands to their west.

Physically, the region falls into a number of parallel longitudinal strips, from the coast inland. Stretching from the shore eastwards to a distance of two to three kilometres is a sandy strip developed over sand-beaches and living dunes backed by stabilised dead dunes, old beach ridges and bars. The shore itself presents a succession of alternating headlands and bays; apart from the three wide estuaries of the Bassein (Ulhas) creek in the south, the Vaitarna estuary in the middle and the Damanganga estuary in the north (just outside the limits of the district), small creeks and inlets like the Khonda (Dahanu) creek, Tarapur-Chinchani creek, Dudh river creek, Mahim and Kelve creeks form alongsides extensive salt marshes and *khar* lands liable to tidal inundations. In many sections, this strip consists of old sand bars and spits.

Culturally, this is a zone of slightly saltish, sandy soils, a shallow water-table and rice-coconut fish culture. Well irrigation with the help of Persian wheels, *rahats* and pumps is of wide and increasing use, in fact so rapid is the expansion of pump irrigation that the area is liable to face water famine, with the exhaustion of the top film of fresh water in the water-table, and the sea-water rising up to take its place. The better-watered lands are devoted to vegetables, flowers and chillis.

Further inland is a flat alluvial low-land, with fairly productive black soils; its eastern limits are marked more or less by the railway. No doubt rice is the predominant crop during the rains, but after the rains a quick succession of winter and summer vegetables are raised making heavy use of pump irrigation, manures and artificial fertilisers. The entire produce finds its way to the city market through trucks and rail. This is also a zone of fruit farming. Nearness to the Bombay market is of vital importance in determining the market produce raised in the region, and accordingly, this zone falls into a number of south

to north cultural divisions, with increasing distance and decreasing accessibility from the city. On the peri-urban fringe, in the northern parts of Salsette, dairy farming is of considerable importance. Just across the Bassein creek, around Bassein lies a zone of seasonal green vegetables and banana culture. The seaside and the creekside, however, are areas of fishing and salt-pans. Further beyond, around Virar, the suburban railway terminal, are a number of prosperous villages like Agashi, Bolinj, Sopara and others that specialise in winter vegetables and flowers. Still farther north, beyond the Vaitarna estuary and its immediate neighbourhood, again a zone of fishing and salt-pans, around Palghar, Vangaon and Chinchani is a region of vegetables and chillies that can stand longer distance transport by trucks and rail. Further beyond, around Dahanu and Gholwad lies a fruit zone, where the local Iranis have developed a stable fruit culture, producing *chickoos*, guavas and pomegranates. Still farther out, along the northern limits of the district is a hay and fodder zone.

East of the railway is a zone where, again, rice is the predominant crop; but, hay and fodder culture gain locally an immense importance, because of the great demand and ready premium price obtained in the dairying zones on the outskirts of Greater Bombay and the adjoining parts of Salsette. Every rail-head here has a major hay godown. There is a persistent tendency among the farmers of the region to divert even productive rice lands to the more lucrative, less expensive hay farming.

The coastal lowlands as a whole have a larger percentage of area under tillage for obvious reasons; permanent pastures for hay making and fruit groves occupy considerable areas, particularly in the Dahanu taluka. Barring rice, no other cereal is grown. Pulses are of minor importance. Well irrigation from about 6,000 wells, most of which are in Bassein taluka, account for the prosperity of fruit gardening in this region.

Industries are by and large absent from the regional scene. Yet, with the increasing pressure on space, during the last few years of the current decade, a few industries have set up units in north Salsette, around Dahisar and Bhayandar.

Villages are fair sized and inter-village distances are low, particularly in Bassein. The villages tend to be larger along the railway, and towards the south, because of large service-seeking commuters residing close to the railway. In Dahanu and Talasari, the northern talukas, significant population is tribal, mostly Varlis. They are husbandmen, and agricultural labour, better settled and progressive than the Varlis of the uplands further east. Malhar Kolis are found all over the region.

Larger settlements like Dahanu, Chinchani-Tarapur, Kelve-Mahim

and Bassein are all ferry points across creeks located along the shore, where large quantities of fish are landed to find their way over land by trucks to the city market. Each of them is a road terminal, linked with the rail-head, about six to eight kilometres further east. Dahanu is a huge collection centre for fish, fruits and forest products. It is a saw-mill centre. Chinchani-Tarapur, a twin settlement across the Tarapur creek, is an old settlement with a fortification, now in ruins. The settlement of Chinchani on old sand bars is a market gardening village while its fishing counterpart, Tarapur, has gained some importance recently due to the location of the nuclear power generating station. Chinchani has an old die casting craft, now declining. Kelve-Mahim is a fishing centre with a richer past. Satpati, closeby, is a large fishery training centre. Bassein, or Vasai as it is now known, has an old fortification of Maratha period overlooking the estuary, now in ruins. Around it are a large number of vegetable, betel and banana gardens.

Rail-head location has added vigour to quite a few settlements. Palghar is a collection centre of fairly large size commanding the rice lands and vegetable zone of the central sections, north of the Vaitarna estuary. Virar is the suburban rail terminal to the south of the Vaitarna estuary. Bhayandar is a salt-producing centre.

The tempo of growth of this region has been hampered to some extent by the two wide estuaries, extensive marshes and the absence of a road, parallel to the railway, traversing the country south to north. The construction of a road bridge across the Bassein creek has been of some use; but the absence of a similar bridge across the Vaitarna estuary has shut off a smoother and more voluminous flow of perishable goods to Bombay city.

The Lower Ulhas Valley or the Kalyan-Bhiwandi lowlands: The Kalyan-Bhiwandi lowlands, below the confluence of the Kalu and the Bhatsai with the main stream of the Ulhas, lies at elevations below twenty metres and is dotted with occasional hills. Along the Thane creek runs the Mumbra ridge, deflecting the stream northwards into its estuarine course through the Bassein creek. Between the ridge and the creek lies a narrow tidal flat, extending into the salt marshes along the shores. On either side of the river, particularly around Mumbra and Diva, extensive areas are liable to tidal inundations, and the river-side is thick with salt swamps. The land is of fine silt in this strip, rising gradually to the slightly higher elevations of the paddy lands. Away from the river, the land is more undulating and leads to the hills in the backdrop.

If the physical landscape of the region is of limited variety, the cultural landscape more than compensates for this deficiency. Lying as it does on the transit corridor on which converges all the road and

rail net-work from the Desh through the Thal and Bhore Ghats and from Konkan in the south, before an entry to the city and Salsette across the Thane creek, over the Kasheli and Thane bridges, this region has immensely benefited from its fringe location to the Metropolitan City. This is well reflected in the high densities of population, exceeding 600 per square kilometre (not exceeded anywhere else in rural Maharashtra), the predominantly urban character of the population, a significant proportion of commuting population that move in and out of the city daily, the receding role of rice farming and its replacement by market gardening and dairy farming on one hand, and the slowly increasing spill-over of industries from the city on the other. Strung along the railway from Mulund on the city limits right upto Titvala on the Igatpuri line and Badlapur on the Pune line are a number of rising townships that are mostly residential areas, but yet during the last decade have witnessed a slowly evolving functional differentiation, due to the growth of industrial establishments. Located at the head of the Thane creek on the city side, commanding all the arteries converging on the city, as well as the water mains, Thane is fast flowering into an industrial city, with two woollen mills and a large number of units producing chemicals, drugs, tools and a variety of engineering goods. All these industrial units are located along the old Bombay-Agra road and the new Express Highway. The residential township adjoins the creek-side, particularly the older, congested parts. Newer developments are mainly to the south and the west. Administration has added to its functional importance. It is also a historic town, with an old port.

Across the creek, at the entry to the mainland lies Kalwa, a village in desolation during the fifties but at present a flourishing industrial township with a population of 14,551, dependent on the huge machinery manufacturing plant and an aluminium plant. Stretching from Kalwa southwards between the Mumbra ridge and the creek is a strip of rice lands. A vast industrial estate has been laid here by the Maharashtra Industrial Development Corporation, bringing in a number of industries, accompanied by growing industrial colonies. South of Kalwa, along the Belapur road, lie industrial units specialising in machinery, tools, engineering and electrical goods. Further south are large chemical plants and a vast petro-chemical industrial complex, right upto Belapur. All these are recent expansions of huge industrial units of the city attracted by developed cheap land, power and water facilities. The recent opening of a road bridge across the Thane creek between Trombay and Belapur, short circuiting thereby the distance on the Bombay-Pune road through Mumbra, and the proposed New Bombay City Project are likely to further transform the economic and social landscape of this till-now-neglected strip.

Beyond Kalwa, along the railway, and across the marshes of Mumbra lies Diva. Mumbra till now used to hold the key to the road traffic to Pune and Konkan, but with the Trombay bridge now in operation, this importance may decline. Diva at present is entirely residential, but is likely to grow in importance with the Diva-Panvel rail link being further extended into Konkan and the Diva-Bassein link coming into existence. Further on, is Dombivli, on a relatively high ground, well drained. Dombivli (population 51,108 in 1971) has had a phenomenal growth nearly 20 per cent in the last ten years, as a residential township, in a rural setting. East of Dombivli is Thakurli, at the head of a bend in the Ulhas river, with a thermal power generating plant, supplying power for railway traction. About three kilometres further east is Kalyan.

Known as an emporium in the early Christian era, when Greek, Roman and Arab traders used to sail up the Ulhas, Kalyan is a town of historic antiquities. It lost its importance to Thane at the head of the creek, as the river silted. But it owes its present importance to the railway. It is the route-focus of the fan-shaped Ulhas lowlands. Located on the inner bend of a loop in the Ulhas river, on low ground, it is liable to extensive flooding when the river is in floods. Not being directly connected with Bombay by a highway, its growth as a residential outskirt of the city has been rather slow but steady. Its present population is 99,547. But its industrial adjuncts to the north and the south-east, *i.e.*, Mohone-Shahad (11,344 in 1971) and Kate-manivli (9,647 in 1971) have had a much more spectacular growth during the last decade. Rayon and chemical industries are located here along the banks of the Ulhas, above a small weir, making full use of the water available in the river throughout the year. Ulhasnagar, a refugee township of Sindhis that came into existence soon after the Partition of India in 1947, has grown into a large city with a population of 1,68,462 and is a hub of activity with considerable retailing and small-scale industrial functions. Ambarnath (population 56,276 in 1971), also a place of historic antiquities and old monuments and a temple, is at present the industrial out-post of the Bombay City, with chemicals and matches as its main out-put. Badlapur, just beyond Ambarnath, is yet to receive the urban impact although there are signs in this direction already. It has a waterworks on the Ulhas that supplies drinking water to Ambarnath, Ulhasnagar and Kalyan.

Away from the railway, beyond the commuter-residential-cum-industrial zone is a narrow strip of market gardening and dairy farmers, whose supplies enter the Bombay markets daily, through the suburban train service. Further inland are the rice farming Kunbi villages, closely spaced and of fair size, with limited hamlet formation.

To the north of the Ulhas river, Bhiwandi dominates the rice farming lowlands as a major rice collection and milling centre. Bhiwandi (population 79,576 in 1971) is admirably located commanding the road emerging from Bombay and Thane through the Kasheli bridge, and roads leading to Kasara, and Igatpuri along the Bhatsai valley, and to Vada through a gap across the Thane valley. Over decades, it is known for its cottage industries : tile-making and hand-loom *sari* weaving. The addition of some industrial units manufacturing agricultural and textile machinery parts has added to its importance. It is also a taluka town and a small educational centre. Bhiwandi is famous for the weaving industry.

General summary: No other district of Maharashtra presents such a vividly and rapidly changing physical and cultural landscape as the district of Thane does. While the northern, interior Thane resembles both in the physical landscape and the socio-cultural economy the rest of Konkan, the coastal and southern parts lying in the vicinity of Metropolitan Bombay and the transport corridor reveal all characteristics of the urban transformation that the area is undergoing rapidly. With the rest of Konkan, the district shares many features of land use and cropping pattern in common the predominance of rice in the lowlands, the raising of *nagli*, *vari* and pulses on the *varkas* uplands, and some importance given to fruit culture. But the wider use of well irrigation, heavier use of fertilisers and the proximity to Bombay has superposed on the basic agrarian economy a market gardening frame, that raises the average income of the lowland farmer in Thane substantially higher than that of his counterpart elsewhere in Konkan. Again, the immense demand for hay and fodder in Bombay's dairy farms has introduced a significant variation in the farm culture of coastal Thane in that along the rail road there has developed a prosperous hay and fodder culture.

The rail and road net-work, industries and commuting have combined to produce in the Ulhas lowlands and the coastal strip a thriving middle class society, mostly service-seeking with a fairly high *per-capita* income. In sharp contrast are the uplanders, entirely rural living in separate hamlets, in a state of economic stagnation, dependent on a precarious single season farming and forest gathering. Without even an assured supply of drinking water throughout the year, not to speak of basic civic and social amenities like medical and schooling facilities, these people, mostly tribal, live in a world of their own. Deforestation and stripping of the soil cover by heavy rains on the one hand, and restrictions on encroachment in forest areas on the other, apart from a rigorous check on shifting cultivation and illegal poaching in the forest interior have unsettled many of these people.

Regional disparities within the district are enormous and the differences imposed by physical relief have only been further enhanced by uneven levels of development opportunities. Obviously the problems of the different parts of the district are also different.

GEOLOGY*

Systematic geological mapping has not been carried out in this area. The present information is based on the work carried out in certain selected areas by way of special investigations. Basalt flows form the predominant formation capped at a few places by laterite at higher levels. A number of hot springs occur in Thane district which have a positive relation with the geology of the area. The hill ranges in the area are predominantly aligned north-south, and have more or less steep escarpments. The drainage is controlled by the Vaitarna, Surya and Ulhas rivers and their tributaries.

Basalt flows, popularly known as Deccan traps, form the predominant formation. It is capped by laterite on a few high plateaus and covered by shore sands along the coast.

A general geological sequence is as follows :—

Shore sand	...	Recent.
Laterite	...	Pleistocene.
Basalt flows	...	Eocene.

Deccan traps : During the closing stages of Mesozoic era enormous amount of basic lava has erupted. The eruption took place through fissures in sub-aerial environment forming a thick pile of lava flow. The Deccan trap has been divided into three major groups, i.e., upper, middle and lower. The Bombay basalt flows have been grouped into upper traps on the basis of the inter-trappean and ash beds present in them (Krishnan, 1968). Being in the contiguous area, the Deccan traps in the district can also be grouped with the upper flows.

A generalized section of the basalt flows shows a thin amygdular flow with pipe amygdules followed by a comparatively thick massive flow capped by a highly vesicular and amygdular flow. The basalts show exfoliation by weathering into spheroidal cores. The flows at Thane were differentiated on their textural and mineralogical variations and at places by the presence of baked, reddish horizon forming the top of the flow. Twenty flows are delineated around Vajreshwari in a vertical column of about 500 metres and nineteen flows around Sativli and Koknere in a 300-metre column. Many of the flows are thin and most of them do not have much lateral extent. The flow belongs to the Pahoehoe type. At places, it shows ropy

* The account on Geology is contributed by the scientists of the Geological Survey of India, Pune.

structure and flow wrinkle. The flows vary from fine to medium grained, grey to black basalts. Porphyritic flows are common.

There are numerous dykes criss-crossing the area. The general trend is, however, north-northwest-south-southeast and north-northeast-south-southwest, dipping steeply to the east. The thickness seldom exceeds six metres. The dykes send out off-shoots of different sizes, at places enclosing lenticular wedges of country rock. Chilled margins are seen along the dykes flow contact. The dykes vary from coarse dolerite to fine grained basalts. Most of the dykes are porphyritic with phenocrysts of feldspar.

Laterite: Few high basalt plateaux of the district are capped by laterites. These are Boundongri ($19^{\circ}10' : 75^{\circ}57'$) and Bombassadongri ($19^{\circ}11' : 72^{\circ}57'$) 430 metres, Kanheri ($19^{\circ}13' : 72^{\circ}58'$) 510 metres and Tungar ($19^{\circ}26' : 72^{\circ}55'$) 665 metres hills. The Kanheri and Tungar laterites have conspicuous development of bauxite.

Shore sands: The sea-coast of the district stretching several kilometres along the western boundary is covered by sands.

Thermal spring: There are about thirty-three hot springs which are described under five groups based on their location. These are : (i) Vajreshwari, (ii) Sativli, (iii) Haloli, (iv) Paduspada and (v) Koknere. Most of the springs are seen on the fringes of dykes. The temperatures of the springs vary from 30°C to 70°C . A rough calculation puts the depth of origin of these thermal springs below 820 metres. Most of the springs are sodium chloride type. These waters are proved to have therapeutic values. Most of the springs give out gases from the orifice of the springs at periodic intervals. The gas issuing out from the Sativli springs was at the rate of one litre per hour. A short description of the groups of hot springs is given below :—

1. *Vajreshwari group* : (i) *Ganeshpuri area* ($19^{\circ}29' : 73^{\circ}01'$).—There are thermal springs, most of these occurring on medium to coarse grained dykes trending $\text{N } 10^{\circ} \text{ E-S } 10^{\circ} \text{ W}$.

(ii) *Akloli area* ($19^{\circ}29' : 73^{\circ}02'$).—There is a linear cluster of six thermal springs near the left bank of Tansa river. They occur on the eastern margin of fine grained dolerite dykes trending $\text{N } 10^{\circ} \text{ W-S } 10^{\circ} \text{ E}$ dipping 75° towards east.

2. *Sativli group* ($19^{\circ}38' : 72^{\circ}55'$): There are about six springs in this group. They occur at about a kilometre west of Sativli village, near Vadvali. The springs issue out from a dyke trending $\text{N } 25^{\circ} \text{ W-S } 25^{\circ} \text{ E}$.

3. *Haloli group* ($19^{\circ}40'30'' : 72^{\circ}51'30''$): There are four hot springs at Haloli occurring in a paddy field about 0.1 kilometre west of the new highway. The springs are situated along a line trending $\text{N } 15^{\circ} \text{ E-S } 15^{\circ} \text{ W}$.

4. *Paduspada springs* ($19^{\circ}41'30'' : 72^{\circ}55'30''$): The four springs in this group are seen in the soil-covered left bank of Vaitarna river. They occur on the western margin of a dolerite dyke trending N 15° E-S 15° W with steep dip towards east. The dyke is not exposed near the springs.

5. *Koknere springs* ($19^{\circ}43' : 72^{\circ}51'$): The three Koknere springs are seen at the right bank of the alluvial embankment six to eight metres high in the dry bed of Surya river. No exposures are seen near the springs. The springs are aligned N 10° E-S 10° W.

Economic mineral deposits: *Bauxite deposits:* Tungar plateau is the most promising of all the aluminous laterities reported in the district. The plateau rises to an elevation of about 665 metres and is situated about 14.5 kilometres north-west of Bassein ($19^{\circ}20' : 72^{\circ}48'$). The bauxite occurs as pockets and lenses in laterites and assumes better proportions near the northern end of the plateau. The reserves are estimated at 1.30 million metric tonnes with an average thickness of 1.5 metres and Al_2O_3 content varying from 40.66 per cent to 59.35 per cent.

Common salt: Common salt is collected in artificial evaporation pans along the coast. It is a thriving industry.

Building material: Basalt is widely used as construction material. The coarse-grained basalt is quarried where it is well joined.

Groundwater: Individual flows in the district have an average thickness of 15-25 metres; and the individual vesicular traps thereof are often upto five metres in thickness. Vesicular traps occurring below water-table are generally the repositories of groundwater, which are tapped locally by open wells. Such wells penetrating the vesicular unit fully are likely to yield large quantity of water. In immediately coastal areas, the vesicular traps are, however, contaminated with saline water due to tidal influence. The scope, therefore, exists in effectively harnessing the vesicular trap units when they occur below water-table in low-lying areas outside the tidal influence.

CLIMATE *

The climate of this district is characterised by high humidity nearly all the year round, an oppressive summer season, and well-distributed and heavy rainfall during the south-west monsoon season. The year may be divided into four seasons. The cold season from December to February is followed by the summer season from March to June. The south-west monsoon season is from June to September. October and November constitute the post-monsoon season.

* The account of "Climate" is contributed by the Meteorological Department, Government of India, Pune.

Rainfall : Records of rainfall in the district are available for ten stations for periods ranging from fifty years. The details of the rainfall at these stations for the district as a whole are given in tables No. 2 and 3. The average annual rainfall in the district is 2,293.4 mm (90.29"). The rainfall in the district increases from the coast towards the interior. The rainfall varies from 1,730.5 mm (68.13") at Mahim on the coast to 2,588.7 mm (101.91") at Shahapur in the interior. The rainfall during the south-west monsoon season, June to September, constitutes about 94 per cent of the annual rainfall. July is the rainiest month with a rainfall of about 40 per cent of the annual total. The variation in the annual rainfall from year to year in the district is not large. In the fifty-year period, 1901 to 1950, the highest annual rainfall in the district amounting to 142 per cent of the normal occurred in 1931, while 1905 was the year with the lowest annual rainfall which was only 56 per cent of the normal. In the same fifty-year period the annual rainfall in the district was less than 80 per cent of the normal in seven years, two being consecutive. Considering the rainfall at the individual stations, two or three consecutive years of such low rainfall occurred once at eight out of the ten stations during this fifty-year period. It will be seen from table No. 3 that the annual rainfall in the district was between 1,800 and 2,800 mm (70.87" and 110.34") in thirty-eight years out of fifty.

On an average there are 83 rainy days (*i.e.*, days with rainfall of 2.5 mm or more) in a year in the district. This number varies from 67 at Mahim on the coast to 92 at Thane.

The heaviest rainfall recorded in 24 hours at any station in the district was 481.1 mm (18.94") at Dahanu on 1st September 1958.

Temperature : There is a meteorological observatory in the district at Dahanu. The records of this observatory may be taken as fairly representative of the meteorological conditions in the district. But in the interior parts of the district, temperatures are likely to be slightly lower in the cold season and higher in the hot season than at Dahanu. Being a coastal district the variation of temperature during the day and between the three seasons is not large. After February, temperatures progressively increase till May which is the hottest month with the mean daily maximum temperature at 32.9°C (91.3°F). In the summer season and in June before the onset of the monsoon day temperature may sometimes go above 37°C (98.6°F) in the coastal parts while in the interior it may be a couple of degrees higher. The oppressive heat is on most days relieved by cool sea-breezes particularly in the coastal regions. The afternoon thunder-showers on some days during the hot season also bring welcome relief. With the onset of the south-west monsoon by about the first or second week of June the temperature decreases a little. From about the beginning

of October when the south-west monsoon withdraws day temperature increases, and in October and November days are nearly as hot as in the summer, while nights become progressively cooler. After November, temperature decreases and in January which is the coldest month, the mean daily maximum temperature is 27.7°C (81.9°F) and the mean daily minimum 16.8°C (62.2°F). In the cold season cold waves sometimes affect the district when the night temperature may go down to less than 10°C (50.0°F).

The highest maximum temperature recorded at Dahanu was 40.6°C (105.1°F) on 19th April 1955 and the lowest minimum was 8.3°C (46.9°F) on 8th January 1945.

Humidity : Owing to the proximity of the sea the district is on the whole very humid nearly all the year round.

Cloudiness : During the south-west monsoon season the skies are heavily clouded to overcast. In the rest of the year skies are clear or lightly clouded.

Winds : Winds are generally moderate except in the latter half of the summer and the south-west monsoon season when they are stronger. Winds during May and the monsoon months are mainly from directions between the north-west and south-west. In the rest of the year winds blow from directions between north and east in the mornings and between west and north in the afternoons.

Special weather phenomena : Some of the cyclonic storms in the Arabian sea in the latter part of the summer and the post-monsoon season either move in a northerly direction in the vicinity of the coast or across the coast in this district or its neighbourhood. On such occasions the district experiences torrential rains and winds sometimes reaching gale force, particularly in the coastal regions. Thunder-storms occur in the latter part of the summer season and in October.

Tables No. 4, 5 and 6 give the temperature and humidity, mean wind speed and special weather phenomena, respectively for Dahanu.

FORESTS

The Thane forests are one of the valuable and well-preserved forests in Maharashtra. The forest areas occurring in the district do not consist of single block, but are scattered all over the district. They are mainly situated on the steep western ghats on the spurs, ridges and outlayers extending from the ghats.

The observations of the old *Gazetteer of Thana District* on forests are reproduced below :—

“ Next to those of Kanara and Khandesh, the Thana Forests are the largest and most valuable in the presidency. Its Government reserves, stretching over 1,664 square miles or about forty per cent of the entire area, lie chiefly in Shahapur, Dahanu, Mahim, Vada,

Salsette, and Bassein. Of the whole area 135 square miles were regularly marked off and set apart as Government Forests before 1878. The remaining 1,529 square miles were added in 1878. Of the whole area 625 square miles have been provisionally gazetted as reserved and 1,039 square miles as protected forest."

The forest area in Thane district as in April 1974 measured 3,822.58 square kilometres or 42 per cent of the total geographical area. Of this, the area under reserved forests was 2,838.51 square kilometres or 74 per cent while protected forests covered 983.94 square kilometres or 26 per cent of the total forest area. The area under unclassed forests was only 0.13 square kilometre.

The entire forest area is under the charge of the Forest department and is managed according to sanctioned working plans and schemes. For the purpose of administration, the district forest area is divided into four divisions, viz., (1) Thane, (2) Dahanu, (3) Shahapur and (4) National Park, Borivali. However, no silvicultural operations are carried out in the Borivali National Park, a part of which is in Greater Bombay, and the exploitation as well as tending of the crop has been discontinued therein. There is an additional division, viz., integrated unit at Dahanu, which is specially meant for sawing, seasoning and treatment of wood. The Thane forests are situated very near to Bombay and the industrially expanding centres around Thane, Kalyan and Bhivandi where many saw mills and hardboard factories using forest produce have been established. Hence there is considerable demand for every type of forest produce.

Composition of crops : More than 90 per cent of the forests of Thane district fall under the type "Tropical moist (mixed) deciduous forests". The occurrence of teak is only 25 to 30 per cent. On better sites it is associated with other species like *ain*, *khair*, *hed*, *bibla*, *shisham*, *sawar* etc.

The other commercially important forest produce in the district includes *apta* leaves, *mohuwa* flowers, palm leaves, *palas* and bamboo. The Thane forests are replete with fire-wood which is so much in demand in the Bombay and Thane urban areas. Some of the species are useful in the manufacture of hardboard. Charcoal is also an important forest produce whose production provides employment to a considerable number of workers. The other minor produce available includes *hirada*, *shikakai*, honey and gum.

The most useful trees and plants found in the Thane forests, in order of their importance, are given below :—

Teak (*Tectona grandis*).—It is the principal species and yields the well-known teak timber used in buildings, industries, furniture-making etc.

Ain (*Terminalia tomentosa*).—It is tall and its wood is durable

and hard, and is used for building and for fuel. The bark is much valued in tanning and its sap yields a gum which is largely eaten.

Khair (Acacia catechu).—It is a very valuable tree both for timber and for fuel.

Apta (Bauhinia racemosa).—It is a small fibrous tree whose leaves are used for making cigarettes.

Hed (Adina or Nauclea cordifolia).—It is a large and handsome timber tree. Logs more than thirty-five feet long are sometimes cut out of a hed tree. From their durability in water and their length, the logs are much prized for fish stakes.

Kalamb (Stephegyne or Nauclea parvifolia).—It is a large timber tree used like *hed* for making fish stakes.

Bibla (Pterocarpus marsupium).—It is a large tree yielding a useful gum. Its wood, though of fair quality, does not last long.

Palas (Butea frondosa).—It is common and its wood, though of fair quality, is not much used for building or other purposes. Its flowers yield a dye and the roots, a fibre. A watery fluid gathered from its roots is considered a cure for fever, and its seeds, for worms.

Karvi (Strobilanthes grahamianus).—It reaches its full growth in eight years, bears a cone-shaped, mass of calices from which beautiful blue flowers appear. After the flowers fall, the cones become covered with a sticky exudation called *mel*. The seeds remain in the cones till they become dry and fall out. The stems are largely used as wattle for huts and cottage.

Dhavada (Anogeissus latifolia).—A very valuable fire-wood tree producing a gum which is largely eaten by the people. Besides fuel, its strong and tough wood is much used for cart axles, poles and also in cloth printing. The leaves yield a black dye and are very useful in tanning.

Savar (Bombax malaburicum).—The well-known silk cotton tree has very light wood which is hollowed for canoes and water troughs. It grows to a large size. Its cotton is used as tinder.

Value and quantity of various forest products: The yield per hectare is considerably more in Dahanu Division as compared to other divisions. The quality of the timber in Dahanu Division is also better than that in other divisions. The division-wise quantity and value of various forest products for 1972-73 was as under :—

(Quantity in thousand cubic metres
and value in lakhs of rupees)

Division	Timber	Value	Fuel quantity	Value
Thane ..	26	54	92	3
Dahanu ..	24	98	61	6
Shahapur ..	44	43	56	18

Revenue and expenditure: The forests in the district contribute revenue to the tune of about Rs. 232 lakhs annually to the public exchequer. The expenditure incurred annually on different forest activities amounts to Rs. 125 lakhs. This picture illustrates the important role of the forests in the district economy.

System of management and working plans: The forest areas in the Thane district are scientifically managed according to the working plan and working scheme. The main objects of management of the Thane Forests are : (i) to protect and conserve the vegetal cover on steep slopes so as to prevent soil erosion ; (ii) to preserve the physical features and to conserve micro-climatic and micro-edaphic conditions of the sites and (iii) to raise large concentrated plantation of teak and other economically valuable industrial woods. The forests in Thane district are classified as follows for purposes of maximum utilisation of the forest resources and their scientific management :—

1. *Protection forests:* This includes all the unworkable areas, i.e., areas which are too steep and inaccessible to work. In such areas selection-cum-improvement silvicultural system is adopted. Most of the areas in Tokawada Range and parts of Murbad, Washala, Vihigaon, Vaitarna and Jawhar ranges are steep and hence have been allotted to this working circle.

2. *Tree forests:* This type of forest includes large-sized teak which is the most valuable species. As the proportion of teak is very scanty, the object of management can be achieved by raising plantation of teak. Most of the areas of Dahanu and Thane Divisions and parts of Shahapur Division are included in conservation working circle.

The area under pulp-wood plantation working circle includes the predominantly mixed forests in Badlapur, Murbad, Mandvi, Gokhivare and Dhasai ranges.

3. *Minor forests:* This type of forests is utilised to meet local demands in respect of small timber, fire-wood and grazing.

4. *Remaining forests:* The area under this type of forests is leased to various bodies for a long period. A part of the forest area has been utilised for dairy development activities under the Dapchari milk scheme and other similar schemes.

WILD ANIMALS AND BIRDS

The forests in Thane district were bestowed with reputed fauna and wild game in the past. The rich wild life in those days included important species like tiger, panther, leopard, hyaena, spotted deer, barking deer, bear, blue bull and a number of species with which the forest was replete.

Sadly however this rich heritage of wild life has dwindled with the passage of time. The larger wild animals have suffered a serious reduction, and the number of tigers is reduced to such an extent that there is anxiety about its total disappearance. The factors responsible for the reduction in wild life, and which threaten its survival are as under :—

(i) The pressure of population and the inroads made by the urban population from Bombay and Thana, as also rural population from the district in the forest areas for cultivation have disturbed a large portion of the forest for growth and breeding of animals.

(ii) Large-scale poaching for meat, skins and feathers by villagers and traders. The Thakurs and Varlis who are expert in using snares and nets are very much fond of killing the animals, and they have killed the fauna to the detriment of its survival. The misuse of guns, meant for crop protection, for killing wild animals by various sections of population has also been quite large.

(iii) The disturbance of wild life in their natural habitat due to increased human activity for collection of fire-wood, leaves and general forest produce has also contributed to the reduction in number of animals and their breeding.

(iv) Indiscriminate shootings by amateurs and V.I.P.s have also contributed to the dwindling wild life in the district.

The account of wild life as at present is given below :—

Among big game, Tiger (*Vagh, Panthera tigris*) is found to inhabit the dense semi-ever-green forests in Banganga, Jawhar and Mokhada. These areas are quite in the interior, and usually human intervention is very little. The occurrence nevertheless is very rare and without adequate protection. The species may completely vanish if measures are not taken for preservation. Panther (*Bibhya Vagh, Panthera pardus*) is found to inhabit the dense as also scrubby forests in the plains and hills of Jawhar, Mokhada, Wada, Bassein and Murbad talukas. They usually resort to cattle, goat and dog lifting, and move about villages occasionally.

The other carnivora found in the forest are hyaena (*taras*), wild cat, wild dog and wolf. These animals are found in Murbad, Bassein, Jawhar, Mokhada and Wada talukas. The hyaena lives chiefly on dead cattle, and occasionally kills dogs, goats or young cattle.

The herbivora is also dwindling in number during the past few decades. They are more or less confined to interior forests where population is very scanty. Among the herbivora, *sambhar* (*Cerus unicolor*) is found in Jawhar, Mokhada and Banganga forests (Mandavi Range) as also in dense forest in Murbad, Tokawada and Dahisar areas. The *chital* or spotted deer (*Axis axis*) is occasionally seen in and around the forest of Banganga, Jawhar, Udhava, Murbad

etc. The barking deer (*bhekar*) and the mouse deer are found occasionally in dense forest areas of Jawhar, Wada, Dahanu and Murbad.

Monkey or commonly called *vanar* or *makad* is also found in some areas. The other small game consists of hares (*Sasa*, *Khargosh*, *Lepus nigricollis ruficandatus*), flying squirrels (*petromys fimbriatus*), mongoose and wild pigs. These animals are found both in open as well as in forest areas all over the district. The peafowl (*Mor*, *Pavo cristatus*) is found quite occasionally. Grey jungle fowl (*Jungle murgee*, *Gallus sonnerali*) is found rarely in dense shrub forests. But grey and painted partridges (*Titar*, *Francolinus*) are common near cultivated areas and are occasionally seen even on the road-side after the harvest is over. The quails (*Lavari*, *Bater*, *Coturnix coturnix*) are quite common, and are found alongwith the painted and grey partridges.

Among the birds, a large variety occurs in this district, especially near tanks and rivers. They inhabit all type of forests. Among them the commonly seen are—

- (1) The red vented bulbul (*Molpastes cafer cafer*).
- (2) Red whiskered bulbul (old *compsa Joacosus fuscandata*).
- (3) The spotted babbler (*Pellorneum ruficeps ruficeps*).
- (4) Yellow eyed babbler (*chrysomma, sinensis sinensis*).
- (5) The Indian tree pie (*Dendrocitta vagabunda vagabunda*).
- (6) The Indian Shama (*Kittacinclla malabarica malabarica*).
- (7) The red-breasted Flycatcher (*siphia parva subsp*).
- (8) Black Drongo (*dicrurus macrocercus*).
- (9) The Racket tailed (*Discemurus paradisous malabaricus*).
- (10) The tailor bird (*orthotomus, sutorius guzerata*).
- (11) The Indian oriole (*oriolus oriolus, kundoo*).
- (12) The common myna (*Acridotheres Tristis tristis*).

Many other winter visitors (migratory birds) which come in the district in December and January in the coastal areas, are as under :—brown-headed king fishers, white-breasted king fishers (*Halcyon, Smyrnensis smyrnensis*) and filed king fisher. These are very common along the coast and are frequently seen catching fish as also lifting the left-over fish of fishermen. Also found are vultures (near Mumbra town) (*Gyps fulvus*) alongwith eagles.

FISH AND FISHERIES

Marine fishing villages are concentrated along the coast-line which is about 110 kilometres in length. There are about twenty-seven fishing villages along the west coast, many of which are tidal ports.

The tide to some extent adversely affects the free movement of fishing fleet except in a few ports like Dahanu, Arnala, Dongri Chowk and Datiware which are more convenient for free movement. In the entire fishing season and more especially in peak fishing periods, the villages bustle with fishery activity almost round the clock. Fishing is extensively done throughout the coast-line up to twenty fathoms from September to May. But during rainy season, although off-shore fishing is suspended owing to winds, the fishery activity is switched over to the hinterland and coastal-creek areas. Unlike other maritime districts of Maharashtra State, the inland fishing activity is equally important in Thane district, where the attempt is made by the *Gram-panchayats* and pisciculturists to fully exploit the potential.

There are about 13,620 fishermen engaged in fishing, of which 10,620 are engaged in marine fisheries and about 3,000 in inland fisheries. In addition to this, there are about 16,200 allied workers in the fishing industry.

Marine fishery : The important marine fishes which are caught in large quantities in the district are shown below :—

English name	Local name	Scientific name	Percentage in catch
(1)	(2)	(3)	(4)
Bombay duck	.. Bombli	.. <i>Harpodon nehereus</i>	.. 41.68
Golden Anchovy	.. Mandeli	.. <i>Collla dussumieri</i>	.. 13.43
Prawns and Shrimps	.. Kolambi and Karali	.. <i>Penacus Sp.</i> (3.75 per cent) and <i>Actes Sp.</i> (13.00 per cent).	16.75
Pomfret	.. Poplet	.. <i>Pampus argentus</i>	.. 8.51
Eel	.. Wam	.. <i>Muraenosox spp.</i>	.. 5.83
Ribbon fish	.. Vagti	.. <i>Trichlurus sp.</i>	.. 3.25
Clupeid	.. Kati	.. <i>Thrissoles sp.</i>	.. 2.21
Shark, Rays, etc.	.. Musi Pakat	.. <i>Carcharinus spp. etc.</i>	.. 1.68
Cat fish	.. Shingala	.. <i>Tachysurus spp.</i>	.. 1.26
Silver bar	.. Datal	.. <i>Chirocentrus sp.</i>	.. 1.22
Jow fish	.. Dhoma	.. <i>Sciaenidae family</i>	.. 1.13
Croaker	.. Dhoma	.. <i>Otolithus sp.</i>	.. 0.92
Thread fins	.. Dara, Rawas	.. <i>Eleutheronema</i>	.. 0.62
Fam Gadida	.. Tendli	.. <i>Bregma ceros</i>	.. 0.18
Miscellaneous Fish	.. ....	.. ....	.. 0.83

Besides these, seer fish, horse mackerel, red snapper, black pomfret, giant herring and Indian shad, cock-up, sole, goat fish, lobsters, etc. are caught in smaller quantities. From creeks bivalves, crabs and oysters are collected.

The important fishing centres along the coast-line of the district are as under :—Dahanu, Pokharan-Uchheli, Murabe, Satpati, Datiware, Arnala, Bassein and Uttan.

The technique of boat-building in the district dates back to 300 years. There are about twelve boat-building yards with a capacity to build sixty boats *per annum*. There are about 1,850 boats in the district, of which 810 large boats are mechanised and the remaining ones (1,040) are either sail-propelled or are moved by oars. It is estimated that about 30,000 cubic feet of wood worth about Rs. 7 lakhs is required annually for the preparation of new boats, barrels and floats, and for repairs to boats in the district. About 200 boats, mostly mechanised, are the gill netters using bottom-drift gill nets while about 900 boats are doing dol-net (bag-net) fishing, and remaining ones are engaged in creek fishing.

Dol-net fishing is the principal type of fishery in the district extending over the entire coast-line while gill-netters are concentrated at Satpati and a few other ports on the northern coast-line. For both the dol and gill nets synthetic twine, nylon and monofilament are used and it is estimated that about 100 tons of nylon (worth Rs. 45 lakhs) and about 150 tons of monofilament twine (worth Rs. 37 lakhs approximately) is required in the district *per annum*. Similarly it is estimated that 40,000 barrels (80 lakh litres) of diesel oil is consumed annually in the district for the operation of mechanised boats.

There are seventeen ice plants* in the district with a daily production capacity of 268 tons of ice. Of these, eleven plants are situated in coastal talukas with a daily production capacity of 155 tons of ice which is used mostly for fish preservation. There are fifteen cold storage units attached to the above plants with a total capacity of 890 tons.

About 60 per cent of the total catch of fish is dried, 25 per cent is sent fresh to Bombay markets, 10 per cent is sold fresh in local areas and 5 per cent is retained for household consumption and for barter dealing.

Frozen fish is transported by trucks to Bombay, while transport by railway is also not negligible.

* Of these, seven are in the co-operative sector.

The total marine fish catch on an average is estimated to be 67,500 metric tons worth about Rs. 6.7 crores per year. In 1970-71, the marine catch was estimated at 55,601 tons, in 1971-72 at 75,852 tons and in 1972-73 at 84,532 tons. Fluctuations occur not only in total catch which may swing sharply below or above the average, but also in the catch from place to place in the same year.

The main varieties of fish like *poplet*, *vam*, *pala*, *ghol*, *dara*, *kolambi*, *khajura*, *boi*, etc., are in great demand in Bombay.

There are five freezing plants in the district, all of which are situated in and around Thane town. They have a freezing capacity of about eighty tons per day, and have a frozen storage capacity of about 800 tons. Shrimps, lobsters, frog-legs and fish are frozen. Fish from the surrounding areas as also from other districts is assembled here for freezing. A part of frozen fish is exported. A few companies are experimenting to freeze pomfrets for export. The dry fish trade is mostly handled by private merchants although recently a few societies are attempting to do this business.

Fisheries education : The Department of Fisheries is running primary schools in two fishing villages, viz., Satpati and Nawapur, which impart training in fishery besides other prescribed subjects. One Fisheries High School is also run by the Department at Satpati where the technique of fishery is taught so as to create interest in fisheries and also to equip the students with vital theoretical and practical knowledge. The Government Fisheries Training Centre at Bassein provides facility for training in improved methods of fishing, navigation, working and maintenance of marine diesel engines. The course of studies in this institute is occupation-oriented.

Fisheries schemes : The following schemes are implemented by the Department of Fisheries for the development of fishing industry and uplift of fishermen :—(1) Under the Mechanization Scheme, loans are advanced for the purchase of boat engines and a special redeemable share-capital is granted to fisheries co-operatives. (2) Subsidy is granted for the purchase of fishery requisites like synthetic twine and diesel oil. (3) Loans are granted to the co-operatives for the purchase of fish transport trucks as also for ice plant and storage machinery. (4) General-purpose medium-term loans are granted by the Department of Fisheries to fishermen to purchase twine, to effect repairs to boats or engines and to procure the other fishing accessories. (5) Grant-in-aid is also given to private primary schools and high schools to introduce fisheries subject in their curriculum. (6) A fisheries co-operative project is also under operation in the district which receives grants from the Agricultural Refinance Corporation. The estimated cost of the project will be Rs. 55 lakhs.

approximately. Forty gill-netter boats are in operation under control of the District Fisheries Federation.

Potentiality : About 10,582 square miles of continental shelf is available off the coast of Thane district which extends from the coast-line up to 100 fathoms depth line in the Arabian sea. At present the belt off the shore up to about twenty-two fathom line is occupied by stakes of dol-net fishery. From twenty-two fathoms to about forty fathoms depth, gill-netters operate but their number is small. As such, the potentialities exist for further exploitation of fish-food from the seas off the district.

General survey : A general survey has been carried out by the District Fisheries office at Palghar in regard to improvement of the following requirements in the fishing ports : port light, transit light, removal of rock and sand in navigation channel jetty and steps for prevention of erosion. Similarly additional lands required by the fishermen for drying fish, nets and for housing have been listed. The authorities also studied the requirements of landing places, motorable roads and necessary amenities for the craftsmen.

Marine fisheries survey : A survey of sea-bed and demersal fish in the seas off Thane district from the coast-line up to twenty-two fathoms could not be conducted owing to the obstacles of spikes of bag net fishery existing in this belt. However, a preliminary survey was conducted by the Department of Fisheries during the period 1965-66 to 1969-70 from twenty fathoms line up to twenty-five fathoms line which covered an area of 1,728 square kilometres. Of this, an area of only 329 square kilometres was found suitable for trawling.

Inland fishery : Estuarine and inland fisheries are also important from the commercial point of view as also employment opportunities they provide in this district. The length of perennial rivers in the district is about 400 kilometres. There are 583 tanks including a few irrigation reservoirs with a water-spread area of about 4,079 acres. Barring a few, most of the tanks are suitable for fish culture. Fish seed of Bengal Carps 19,46,000 in 1971-72 and 18,20,000 in 1972-73 was stocked in the tanks. Many tanks were desilted by the Zilla Parishad in 1972-73 and hence the demand for fish seed increased to a great extent in 1973-74, and about 41 lakh fish seed was stocked in the district.

It is estimated that about 1,300 metric tons of fish is caught annually from inland waters, of which *Catla*, *Rohu* and *Mrigal* account for 300 tons. With the increase in stocking of fish seed the production of these three major carps was expected to rise up to 400 metric tons in 1974-75.

The commercially important varieties of fish available from fresh and estuarine waters in this district are given below :—

Serial No.	English name	Local name	Scientific name
(1)	(2)	(3)	(4)
1	Major Carp	.. <i>Catla</i>	.. <i>Catla catla</i> .
2	Major Carp	.. <i>Rohu</i>	.. <i>Labeo rohita</i> .
3	Major Carp	.. <i>Mrigal</i>	.. <i>Cirrhina mrigala</i> .
4	Mirror Carp	.. <i>Cyprinus</i>	.. <i>Cyprinus carpio</i> .
5	Cat fish	.. <i>Shingala</i>	.. <i>Mystus sp.</i>
6	Murrel	.. <i>Murrel</i>	.. <i>Chana sp.</i>
7	Wallago	.. <i>Shivda</i>	.. <i>Wallago attu</i> .
8	Feather back	.. <i>Chalat</i>	.. <i>Notopterus sp.</i>
9	Carp	.. <i>Khavlya, Kolsht, Khavel,</i>	.. <i>Puntius sp.</i>
10	Mullet	.. <i>Boi</i>	.. <i>Mugilidae</i> .
11	Prawn	.. <i>Zinga</i>	.. <i>Palaemon sp.</i>
12	Pearl spot	.. <i>Katunder</i>	.. <i>Etroplus sp.</i>
13	Gobies	.. <i>Kharbi</i>	.. <i>Glossogobius sp.</i>
14	Tilapia	.. <i>Tilapia</i>	.. <i>Tilapia sp.</i>
15	Cock-up	.. <i>Khajura</i>	.. <i>Latea sp.</i>
16	Big eye	.. <i>Vadas</i>	.. <i>Megalops sp.</i>

The medium irrigation tanks, seven of which are completed and five of which are under construction, also provide a good potential for future development of inland fisheries in the district.

Co-operative societies : There are forty fishermen's co-operatives in the district, which are mainly functioning at Uttan, Bassein, Arnala, Satpati and Zai. They have been striving for ameliorating the condition of fishermen and promoting the fishery activity. Some of them own ice factories, fish transport trucks, fair price grain shops, diesel pumps and fishery requisite shops.

Fifth Plan : A provision of about rupees one crore is proposed to be made for the development of fisheries in the district during the Fifth Five-Year Plan. This provision is exclusive of the monetary allocation for the development and improvement of ports in the district. Efforts are also made to promote export of frozen fish and channelising of fresh and dry fish through the net-work of co-operatives to cities and towns in the State.

SNAKES *

The district is bounded by mountains on the eastern sides as well as in the south. A number of rivers rise from these mountains and flow out to the sea in the west. The total area of the district is nearly

* The account of Snakes is contributed by Dr. P. J. Deoras, Bombay.

24,41,574 acres and more than one-third of this area is covered by forests. Thus the vast mountainous area, river-beds and the forests alongwith 3,000 acres under fruits and vegetables make it congenial home for snake fauna. The district is quite replete with snake fauna and this fact has been confirmed by the recent survey of the number of snake-bite cases. The number of deaths from snake-bite recorded at the various primary health centres in the district came to 105 in 1971, out of a total of 1,403 for the Maharashtra State.

All along the *adivasi* region of the district, there are a number of local country physicians called *Vaidus* and they were seen to collect different kinds of herbs, so-called snake-stones and also recite charms. The patients are first subjected to the sticking of the snake-stones on the snake-bite wounds. Then comes the administration of herbal powders and ultimately the charms are recited. Many of the charms are in vernacular, and except for being onomatopoeitic the words do not convey any coherent meaning. The reciters observe fast during monsoon months and deny themselves long-pod vegetables. The snake-stones are said to be taken out of the mouth of some cobra snakes, and are always kept in dry powders like vermilion; on investigation these stones looked like either dried polished pieces of muscles or well-polished clear resin material. Some of the herbs appear to be wild banana seeds, *Calotropis gigentia* seed, powdered soap-nut seeds and *sal ammoniac*.

The *adivasis* seem to know a large number of snakes and give them various local names such as *Sarp*, *Nag*, *Phoorsa*, *Mahadul*, *Kander*, *Kamblya*, *Saraptol*, *Haryal*, *Diwad Panchita*, *Dhaman*, *Dhamuwar*, etc. The maximum number of snake-bite cases resulting in injury and deaths are reported from the Wada area and the snake incriminated is *Echis carinata* or *Phoorsa*, as it is locally called.

During the investigations it was found that at one centre, which had recorded snake-bite cases regularly, the maximum number of cases were recorded during July-August and the minimum in December. All the above factors indicate that snake-bite cases are a very frequent phenomenon in the district.

The common poisonous snakes found in the area are Cobra, Russels Viper, Common Krait, *Phoorsa*, *Raat*, *Samudra Sarp* and *Haranag*.

Poisonous snakes : (1) *Cobra (Naja naja)*: It is locally known as *Nag*, *Sarp*, *Akadya*, *Kalya* or *Gohlya*.

This snake has a hood, which no other snake possesses. It spreads the hood when disturbed. There is a spectacle-shaped mark on the upper side of the hood. In some specimens this mark is absent. But in all cases the lower side of the hood has two black spots laterally and five faint smokey black stripes across the hood. The cobras found

in the region are yellowish brown but have faint black edges in the form of cross bars all along the body. The most significant characteristics of this snake are third supra labial scales, touching the eye and nasal and small triangular wedge between the fourth and fifth infralabial.

This is a nocturnal snake and found during the day-time. The poison of this snake is neuro-toxic. The poison fangs being small and fixed in the jaw, the snake does not always get an opportunity to have a good bite or to give a full dose of venom. Secondly it is more afraid of human beings and tries to bite in self-defence only. In all cases where a sub-lethal dose of venom has been injected the patient survives even without any medicine (such are the cases that are normally said to be cured by charms). If a lethal dose has been delivered, only an anti-venin injection can save the patient.

The snake feeds on rodents, frogs and sometimes birds. If these are kept away from houses, there would be no cobra in houses. Sexes are separated and the female is distinguished from the male by the absence of two penes that stick out in the later beyond the vent when it is squeezed. Nearly sixty eggs are laid in April and these hatch in about 56 to 60 days. The freshly hatched cobra snake could give a lethal dose of venom and cause death.

This snake raises the hood to the so-called noise of the flute, because the flute-player sways the hands and the snake wants to take aim to strike. The snake-stones or *Zahar-Mohra* are fake transplanted material which will never be able to suck any poison from a snake-bite.

(2) *Krait (Bungarus caeruleus)*: It is locally called *Manyar* or *Chudya*. This timid snake is steel blue in colour and has white lines across the body. The length goes up to four feet, and is found in thatched roofs or in crevices in bricks. The most distinguishing characteristic of this snake is the chain of hexagonal scales on the upper side from neck to tail. Secondly, the lower scales beyond the anal region are complete and not half as in a cobra, oligodon or rat snake.

The fangs are small and are fixed to the jaw. The amount of venom given is small but is twice more lethal than a cobra venom. The patient does not suffer much pain, but slowly sleeps down to death. The poison is neuro-toxic and the effects are cured by an anti-venin only. This snake lays eggs during rainy season.

(3) *Russel's Viper (Vipera russelli)*: Locally known as *Kandar*, *Ghonas* or *thiplkya* is seen in areas with broad-leaved forests and rocks. It is snuff brown, with a triangular head and body covered by three chains of elliptical deep brown spots. It hisses loudly and continuously when a person passes near it. It strikes by taking the body as lever and throws the head to strike. The fangs are nearly half an inch long and are covered by a sheath. When disturbed, these

fangs are drawn from the sheath and struck at the victim with the force of the lever-like action of the body.

The venom is vaso-toxic, causing bleeding, oozing, swelling and great pain especially at the site of bite. The effects are cured by the administration of an anti-venin. This snake does not lay eggs, but gives birth to young vipers to the tune of about 96 at a time. These young vipers are as poisonous as the adults.

(4) *Coral snake (Callophis nigrescens)*: In the hills round about Wada this small snake with pinkish belly and black bars on the head is found during the rainy season. The head is partly black but the body is brown with tiny black spots in the dorsal region. There is a white stripe behind the black margin of the neck. There are about five stripes edged with white lines running along the side. People dread these snakes since it is a poisonous one. It is nocturnal in habit and feeds on frogs, small rodents and lizards. It lays eggs in late summer and the young ones hatch at the beginning of the rains. It is found only at higher elevations.

(5) *Saw-scaled viper (Echis carinatus)*: This snake is called *Phoorsa* in the entire region and is never beyond 18" in length. The head is triangular and bears an arrow head mark. It is a brownish snake with diamond-shaped deep brown marks all over the body in different patterns. It often sits forming the figure of 8 and makes sound by rubbing the scales. The majority of snake-bite cases occur particularly in the Wada region. The victim may not die immediately but he suffers from the secondary effects of the bite, and may succumb to the same in a number of days. In fact, the patient starts oozing of blood from the gums, nostrils, kidney and even eyes after about twelve hours, and legs get heavily swollen. The suppurative marks at the site are seen off the bite. This snake does not lay eggs but gives birth to young snakes like the adult, and these are found in large numbers during the rainy season.

(6) *Pit viper (Trimeresurus gramineus)*: A few specimens of this tree viper are found in the bamboo groves in the forest beyond Talasari and other hilly areas. The snake is green with a triangular head and does not grow beyond 2½ feet in length. The poison is neuro-toxic like that of Russel's Viper.

(7) *Sea snake (Hydrophis caeruleus)*: The sea snake is locally known as *Samudra sarp* and is found in the coastal region of the district. Many a time the fishermen catch these snakes in their nets. The body in the front is slightly round but the tail is flat like an oar. One can also see that the ventral scales are fused together to form a continuous callosity at the base from the mouth to the tail. The snake cannot move easily in the open sand and wriggles about in a very awkward manner. The fangs of this snake are in the rear region

Therefore, it cannot always get a good grip for biting. But the venom is very toxic and unless treated very soon the patient will not survive.

The victims of any of the poisonous snakes mentioned above can be saved only by the injection of polyvalent anti-venin which is manufactured at present only in the Haffkine Institute, Bombay. However, since this is to be given intravenously it is desirable to consult a medical practitioner. When given in time, this is the only sure remedy against snake-bites of the poisonous species.

Non-poisonous snakes : (1) *Blind snake (Typhlops braminus)* : This blind degenerate brown snake locally known as *Andhalya sarp* grows to about ten inches and is very thin. The body is covered with imbricate scales. It looks like an earth-worm but earth-worm has no scales. There is slight distinction between the head and the body. There are no distinct eyes on the head, and the tail has a blunt point for digging purposes. It has teeth only on one jaw and it feeds on decaying matter in the soil. Sometimes it is seen to feed on insect larvae and worms. The snake lays tiny eggs.

(2) *Sand boa (Eryx conicus)* : This snake with a blunt tail is called *Dutondya* or *Durkyaghonas* because the tail is blunt. People always mistake the snake to be possessed of two heads which are said to be active every six months. But this is not true. It is a pinkish grey snake with deep brown irregular patches all over the body. The patches are edged by black borders. The ventral side is faint yellow with brown spots on the outer sides. The scales on the head are very small with the vertical pupil. The snake remains hidden in sandy soils and feeds on frogs, mice and lizards. It is often mistaken to be the young one of a python. When disturbed, it bites viciously. During the summer it lays eggs which hatch out in July.

(3) *Indian python (Python molurus)* : This is a pretty big snake often growing to fourteen feet and weighing nearly twenty-two pounds. The head is pinky with lance-shaped mark and the body contains chocolate pattern patches all over intermingled with white borders. The teeth are very powerful and it holds the prey by teeth, and strangulates it to death by the coils of its body. It is found to feed on goats, pigs, stags and rabbits which it kills by strangulation and then devours. It is found near rocky areas and water reservoirs. Though not very common, this snake is seen frequently and is called *ajagar*.

(4) *Trinket snake (Elaphe helena)* : In the mountainous region this olive-coloured snake, locally known as *Kandar*, with black cross-bars containing white spots is met with. The underside of this snake is yellowish, its mouth is small and the scales on the posterior part and the tail region are keeled. When disturbed, it assumes a provocative attitude. Normally it feeds on lizards, small mammals, frogs and tiny snakes. It lays eggs.

(5) *Rat snake (Ptyas mucosus)*: Locally this yellow snake is called *Dhaman*. It is a very common snake and has black spots specially in the posterior part of the body which is camel yellow in colour. It grows nearly ten feet and climbs trees with ease. When handled, it throws coils of its tail round the victim tying a bow-line knot and often it ejects foul-smelling liquid from the glands in the hind region which leaves a putrid smell. People, therefore, think that the snake can start rotting up the skin which is not true. There is no truth in the common belief that the snake sucks milk from the udders of the buffaloes. The eggs of this snake are fairly big but blunt at both the ends. Many local tribes eat the snake as well as the eggs.

(6) *Racers (Coluber fasciolatus)*: This snake is locally called *Nagin*, but it has nothing to do with the cobra. It is grey dorsally with a dorsal series of black cross-bars or spots at the scale borders. A number of small spots are seen at the sides. The neck has a black stripe leading up to the eye. It is yellow ventrally. It feeds on lizards, frogs and birds, and lays eggs during the summer.

(7) *Wolf snake (Oligodon venustus)*: The local people call it *Gargar*. It is grey with a brown tinge and paired blackish spots with white borders. These look like brown cross-bars as in a krait. But there are yellow spots also. It has no dorsal hexagonal scales like that of a krait. It is a harmless snake. It lays eggs.

(8) *Flying snake or Golden tree snake (Chryso-pelea ornata)*: Locally known as *Kali Nagin* it is pale green dorsally with blackish cross-bars formed by black-edged scales at regular intervals. Some specimens have orange spots on the dorsal side. The lower side of the body is greenish. The head is black with thin yellow or pale green cross-bars intermingled with spots. This snake is found in the forests feeding on lizards, small mammals, birds and even insects. Normally it suspends itself from tree branches and attacks the prey on the tree killing it by coiling and feeding itself while it suspends from the branches. It lays eggs.

(9) *Common wolf snake (Lycodon aulicus)*: This snake is locally called *Kavda*. It is purple brown with grey spots having a white border. The reticulate pattern of the spots gives the impression that the snake has got cross-bars and is then often mistaken to be a krait, but unlike the krait it has no hexagonal scales on the dorsal side. It is a small snake growing to about two feet and is often met with in gardens and back-yards, feeding on frogs, small mammals and eggs of birds. It is oviparous.

(10) *Keel back (Natrix piscator)*: This snake, locally known as *Pandivad*, has a mixture of brown and olive colours having black spots arranged in a chequer board pattern all over the body. These are more prominent in the hind region. A couple of black stripes are

present on the head and below the eyes. It is a very common snake in the plains, often found near ponds and other water reservoirs. It catches frogs and fishes and is encountered many a time in the paddy fields where it lies submerged in water. With the least disturbance of water this snake dips down and lies submerged for as many as fifteen minutes. It lays eggs in the month of April and the young ones are born in the month of May-June.

(11) *Buff striped keelback (Natrix stoleta)*: This is another very common snake found extensively in the region during the months of monsoon. Locally it is known as *Naneti*. It is greyish and olive green with reticulated black spotted irregular cross-bars on the body and two buff-coloured longitudinal stripes running at the side. The head has black-bordered shields. It does not grow more than two feet and not thicker than the human hand thumb. One could often handle it with ease. It has been seen to be domesticated also. It is oviparous.

(12) *Cat snake (Boiga triagonate)*: Locally it is known as *Manjrya*. It is a brown snake with dark inverted, vitiated, yellow black-bordered marks over the body. It has a large lung-shaped brown patch bordered with black colour extending from below the eyes up to the neck. The belly is whitish with black spots at the sites. The peculiarity of this snake is that it raises its head when provoked, and people often mistake it to be a cobra. But it has no hood and is completely non-poisonous. It feeds on frogs and lizards and lays eggs in the month of March.

(13) *Common green whip snake (Dryophis nasutus)*: This is the local snake which is parrot-green in colour and grows to about five feet and more, and has a long elongated head. Locally it is called *Sarpa Toli*. It hangs from the trees leaving only six inches of the head free from the branches. People often mistake the snake to be a twig and many a time the head of the snake may be right in-between the human eyes before it is perceived. People think that this snake hypnotises. But this is not true. It feeds mainly on birds and their eggs. Though it is non-poisonous, the bite gives some irritation at the spot because probably the saliva is slightly toxic. It lays eggs during the month of July.

(14) *Dog-faced water snake (Cereberus rhynchops)*: This snake is sometimes encountered in the coastal region. It is bluish grey with well-defined darker spots and cross-bars on the body. The nostrils are directed upwards. The eyes are very small and the body is stout and rough as well as heeled. The tail is short, compressed at the base tapering to a more or less obtuse point. This snake feeds on fishes. It becomes very uneasy when the tide is low as it cannot move out on land. It is timid but, when cornered, emits a disagreeable odour and bites viciously. This snake is non-poisonous. It lays eggs in the sand during March and the young ones are born before the monsoon sets in.

TABLES

TABLE NO. 1—TOTAL AREA, DENSITY OF POPULATION, TOWNS AND VILLAGES, THANE DISTRICT, 1971

Taluka/District	Area in square kilometres	Number of inhabited villages	Number of deserted villages	Number of towns	Population, 1971	
					Total	Density per square kilometre
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Thane District ..	9,553.0	1,588	34	24	22,81,664	239
<i>Talukas</i>						
(1) Thane ..	305.4	69	6	4	3,32,097	1,087
(2) Vasai ..	526.3	83	....	4	2,13,026	405
(3) Palghar ..	1,092.7	186	4	2	2,13,405	195
(4) Dahanu ..	963.7	127	....	2	1,87,152	194
(5) Talasari ..	248.1	27	....	....	53,385	215
(6) Jawhar ..	804.7	112	1	1	95,896	119
(7) Mokhada ..	627.3	69	....	....	54,430	87
(8) Vada ..	736.3	164	1	1	83,914	114
(9) Bhivandi ..	683.0	197	5	1	2,46,024	360
(10) Shahapur ..	1,645.4	195	7	1	1,43,325	87
(11) Murbad ..	898.5	170	3	....	99,585	111
(12) *Kalyan ..	311.2	104	2	....	1,02,736	330
(13) †Ulhasnagar ..	311.7	85	5	2	60,305	193

* Kalyan taluka excludes an urban population of persons 1,71,646 (92,999 males and 78,647 females) which is included in Ulhasnagar city agglomeration under Ulhasnagar (M) and Ambarnath (M). It also excludes area, number of towns, occupied residential houses and number of households of respective towns.

Ulhasnagar taluka excludes an urban population of persons 2,24,738 (1,20,524 males and 1,04,214 females) which is included in Ulhasnagar city agglomeration under Kalyan (M), Dombivali (M), Mohone and Katemanivali towns. It also excludes area, number of towns, occupied residential houses and number of households of respective towns.

TABLE NO. 2—FREQUENCY OF ANNUAL RAINFALL IN THANE DISTRICT
(Data : 1901-1950)

Range in mm.	No. of years	Range in mm.	No. of years
1,201—1,400	.. 2	2,401—2,600	.. 9
1,401—1,600	.. 2	2,601—2,800	.. 7
1,601—1,800	.. 3	2,801—3,000	.. 2
1,801—2,000	.. 4	3,001—3,200	.. 2
2,001—2,200	.. 8	3,201—3,400	.. 1
2,201—2,400	.. 10		

TABLE No. 3—NORMALS AND EXTREMES

Station	Number of years of data	January	February	March	April	May	June	July	August
Thane	.. 50 (a)	3.1	1.0	1.5	2.3	25.1	541.3	922.0	539.7
	(b)	0.3	0.1	0.1	0.2	0.8	16.3	27.9	25.7
Kalyan	.. 50 (a)	2.3	1.0	0.8	1.8	13.5	432.6	946.1	553.5
	(b)	0.2	0.1	0.1	0.1	0.7	13.9	25.9	23.4
Murbad	.. 50 (a)	2.3	0.8	0.5	2.8	15.5	399.3	990.1	634.2
	(b)	0.2	0.1	0.1	0.3	1.0	14.5	26.5	25.6
Shahapur	.. 50 (a)	3.6	1.3	2.0	2.3	18.3	427.2	1,069.9	621.0
	(b)	0.2	0.1	0.1	0.2	0.9	14.4	27.3	26.0
Mokhada	.. 50 (a)	3.1	1.0	1.0	3.8	16.5	360.4	1,006.6	632.2
	(b)	0.2	0.1	0.1	0.3	0.9	13.5	27.5	26.5
Bhiwandi	.. 50 (a)	3.6	1.0	1.3	2.0	21.3	502.4	1,015.7	584.2
	(b)	0.2	0.1	0.1	0.2	1.0	14.5	26.5	24.0
Vasai	.. 50 (a)	3.1	1.3	0.8	1.3	17.3	450.9	684.8	380.7
	(b)	0.2	0.1	0.1	0.1	0.7	13.9	23.2	20.3
Vada	.. 50 (a)	4.1	1.0	0.5	2.5	16.0	420.4	1,068.1	580.1
	(b)	0.3	0.1	0.1	0.1	0.8	14.1	26.4	24.7
Mahim	.. 44 (a)	2.5	0.8	1.5	3.3	14.5	367.0	683.3	325.6
	(b)	0.2	0.1	0.1	0.1	0.5	12.1	21.8	17.9
Dahanu	.. 50 (a)	2.3	1.0	0.5	2.8	12.2	357.9	730.3	347.0
	(b)	0.3	0.1	0.1	0.1	0.4	11.4	22.4	18.5
Thane District	.. (a)	3.0	1.0	1.0	2.5	17.0	425.9	911.7	519.8
	(b)	0.2	0.1	0.1	0.2	0.8	13.9	25.5	23.3

(a) Normal rainfall in mm.

(b) Average number of rainy days (days with rain of 2.5 mm or more).

OF RAINFALL, THANE DISTRICT

September	October	November	December	Annual	Highest annual rainfall as percentage of normal and year*	Lowest annual rainfall as percentage of normal and year*	Heaviest rainfall in 24 hours†	
							Amount (mm.)	Date
326.9	93.2	19.1	2.3	2,477.5	161 (1937)	50 (1918)	391.7	1958 June 26
16.2	3.6	0.8	0.2	92.2				
294.1	87.1	20.6	2.0	2,355.4	142 (1931)	49 (1905)	458.5	1885 July 17
14.8	3.7	0.8	0.2	83.9				
362.7	98.5	24.4	2.5	2,533.6	141 (1938)	61 (1905)	386.6	1921 July 23
17.1	4.4	1.3	0.2	91.3				
331.5	90.7	19.1	1.8	2,588.7	142 (1914)	50 (1918)	441.2	1903 July 6
16.5	4.0	0.9	0.2	90.8				
320.8	99.8	18.5	3.6	2,467.3	134 (1914)	56 (1904)	394.7	1941 July 2
16.1	4.6	1.0	0.3	91.1				
336.3	95.3	12.9	2.0	2,578.0	172 (1917)	45 (1905)	469.1	1885 July 17
15.3	3.4	0.7	0.2	86.2				
278.4	75.7	15.7	1.5	1,911.5	173 (1931)	44 (1905)	358.4	1898 Sept. 11
13.6	2.7	0.7	0.2	75.8				
328.9	93.7	17.0	2.3	2,534.6	170 (1931)	60 (1905)	459.2	1953 Sept. 19
15.6	3.5	0.7	0.2	86.6				
261.6	56.1	13.5	0.8	1,730.5	169 (1931)	55 (1920)	356.6	1923 Sept. 21
11.3	2.2	0.4	0.1	66.8				
226.3	57.1	20.1	1.5	1,759.0	168 (1914)	45 (1905)	481.1	1958 Sept. 1
11.2	2.3	0.6	0.1	67.5				
306.7	84.7	18.1	2.0	2,293.4	142 (1931)	56 (1905)		
14.8	3.4	0.8	0.2	83.3				

* Years given in brackets.

† Based on all available data up to 1959.

TABLE NO. 4—NORMALS OF TEMPERATURE AND RELATIVE HUMIDITY (DAHANU)

Month	Mean daily maximum temperature °C	Mean daily minimum temperature °C	Highest maximum ever recorded		Lowest minimum ever recorded		Relative humidity	
			°C	Date	°C	Date	0830 * %	1730 * %
January	27.7	16.8	34.4	1957 Jan. 23	8.3	1945 Jan. 8	68	71
February	28.2	17.5	37.8	1949 Feb. 28	8.8	1961 Feb. 9	67	70
March	30.3	21.0	38.9	1946 Mar. 16	12.8	1945 Mar. 6	68	67
April	32.0	23.9	40.6	1955 Apr. 19	19.3	1959 Apr. 3	73	70
May	32.9	26.8	38.3	1944 May 8	20.6	1947 May 7	78	75
June	32.1	26.4	38.3	1951 June 11	15.0	1948 June 16	86	81
July	29.7	25.1	35.0	1947 July 4	18.4	1960 July 25	91	86
August	29.1	24.8	31.7	1947 Aug. 9	20.6	1951 Aug. 31	89	84
September	29.6	24.3	33.9	1944 Sept. 10	21.1	1954 Sept. 5	87	79
October	31.7	23.0	36.1	1960 Oct. 21	17.2	1954 Oct. 30	77	74
November	31.9	20.0	36.7	1947 Nov. 25	15.6	1955 Nov. 4	68	71
December	29.7	17.7	35.6	1952 Dec. 5	11.1	1945 Dec. 17	67	71
Annual average	30.4	22.3					77	75

* Hours I. S. T.

TABLE NO. 5—MEAN WIND SPEED IN KM./HR. (DAHANU)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
12.1	12.5	14.0	14.8	16.5	18.4	25.3	24.3	16.3	10.8	9.9	10.7	15.5

TABLE NO. 6—SPECIAL WEATHER PHENOMENA (DAHANU)

Mean number of days with	January	February	March	April	May	June	July	August	September	October	November	December	Annual average
Thunder	0.0	0.0	0.0	0.1	0.1	1.2	0.0	0.3	0.6	0.2	0.0	0.0	2.5
Hail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dust-storm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Squall	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Fog	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* * *

CHAPTER 2—HISTORY*

ANCIENT PERIOD

THANE HISTORY MAY BE DIVIDED INTO FOUR PERIODS, THE EARLY Hindu Period, partly mythic and partly historic, coming down to about A. D. 1300 and properly called Ancient Period ; the Musalman Period lasting from 1300 to about 1660 ; the Maratha Period from 1660 to 1800 ; and the British Period since 1800. The chief interest in the history of Thane coast is that, with comparatively few and short breaks, some one of its ports, Sopara, Kalyan, Thane or Sanjan, has, from pre-historic times, taken a leading part in the foreign commerce of Western India. From pre-historic times the Thane coast has had relations with lands beyond the Indian Ocean. From B. C. 2500 to B. C. 500, there were signs of trade with Egypt, Phœnicia and Babylon ; from B. C. 250 to A. D. 250 there were dealings with, perhaps settlements of, Greeks and Parthians ; from A. D. 250 to A. D. 640 there were Persian alliances and Persian settlements ; from A. D. 700 to A. D. 1200 there were Musalman trade relations and Musalman settlements from Arabia and Persia ; in 1530 there was the part conquest by the Portuguese ; and in 1664 the settlement of the British. The share of the Hindus in these dealings with foreigners had by no means been confined to providing in India valued articles of trade. As far back as record remains, for courage and enterprise, as traders, settlers, and travellers both by land and by sea the Hindus held a high place among the dwellers on the shores of the Indian Ocean.

The openings through the Sahyadris by the Thal, the Nana, the Malsej, and the Bor passes, have from the beginning of local history (B. C. 225) caused trade to centre in the Thane ports. During these two thousand years the trade of the Thane ports, from time to time, has varied from a great foreign commerce to a local traffic. The trade has risen to foreign commerce when the Thane coast has been under a power which ruled both the Konkan and the Deccan ; it has shrunk to a local traffic when Thane and the Deccan have been under different rulers.

* The section on Ancient Period is contributed by Mahamahopadhyaya Dr. V. V. Mirashi, Nagpur.

The sections on Mediaeval Period onwards have been contributed by Dr. B. G. Kunte, M. A. Ph. D. (Economics), Ph. D. (History), Executive Editor and Secretary.

The Thane district forms a part of Konkan. This country was divided into two parts—(1) North Konkan also called Aparanta (the Western End), later known as Puri-Konkan after its capital Puri, and (2) South Konkan also called Sapta-Konkan (or the Country of Seven Konkans). The former comprised the districts of Thane and Kolaba and the latter those of Ratnagiri and Goa. This country must have been originally inhabited by the same races as the other parts of Maharashtra, though in the absence of archaeological excavations we have no definite evidence on this point. As stated earlier on account of its numerous ports and creeks this country must have played an important part in the formation of Maharashtra culture by letting in foreign influences in the course of trade and commerce. It is also surmised that the chalcolithic culture of Maharashtra was greatly transformed by the foreign immigrants who entered South India through the ports and creeks of Konkan. They are said to have introduced the megalithic culture noticed in several districts of Maharashtra. According to Haimendorf these megalithic builders were a people of the Mediterranean stock, who probably came to the western coast by sea, entered South India in about 500 B. C. and spread northward subduing the earlier neolithic and microlithic people who were in a semi-nomadic, food-gathering stage of culture. Further, since the distribution of South Indian megaliths was almost conterminous with that of the Dravidian languages, it is this people who should have introduced the Dravidian language (or languages) in the region. And it is their kings—the Cholas, Cheras and Pandyas—to whom the Ashokan edicts were addressed. Thus the ancient Tamil should go back to about 500 B. C.

These speculations, though interesting, have not yet been accepted by scholars. Though the Konkan country must have come into contact with the Near and Far West and had commercial dealings with several western countries such as Iran, Iraq, Africa and Egypt, the chalcolithic culture of Konkan like that of Maharashtra, may have been affected by the advent of the Aryans of North India rather than by the immigrants from the west.

Indian mythological legends also support this view. It is said that the country of Konkan was rescued from the western sea by Parashurama who is regarded as an incarnation of the Aryan god Vishnu. After killing Kartavirya who had murdered his father Jamadagni, Parashurama exterminated the Kshatriyas twenty-one times and conquered the whole earth. He then made a gift of the whole country to the Brahmin Kashyapa. Then for his own residence he made the Western Ocean recede and form the country of Shurparaka (modern Sopara in Thane district) extending 400 *yojanas* in length. He made a settlement of Brahmins there and then went

to the Mahendra mountain on the eastern coast for practising penance. The hill from which Parashurama is said to have discharged his arrow to make the Western Ocean retreat is situated near Chiplun on the western coast. The region is known as Parashurama-*kshetra* and contains a holy temple of Parashurama, which is famous in Konkan and is constantly visited by pilgrims.

Ashok's Edict, B. C. 225 : The earliest known fact in the history of Thane coast and incidentally of Aparanta belongs to the third century before Christ (B. C. 225). It is the engraving of Ashok's edicts on basalt boulders at Sopara about six miles north of Vasai. Sopara must then have been the capital of the country and probably a centre of trade. The history of Sopara may doubtfully be traced to much earlier times. According to Buddhist writings Sopara was a royal seat and a great centre of commerce during the life-time of Gautama Buddha (B. C. 540).¹ But the story is legendary, or at least partly legendary, and there is no reason to suppose that Gautama ever left Northern India. A passage in the *Mahabharat* describes Arjun stopping at the most holy Shurparak on his way to Somnath Pattan or Veraval in South Kathiawad, and gives an account of Arjun's visit to a place full of Brahmin temples, apparently at or near the Kanheri Caves.

This early Buddhist and Brahmin fame, and the resemblance of the name to Sofer or Ophir, have raised the belief that Sopara is Solomon's Ophir, a famous centre of trade about a thousand years before Christ. This identification leads back to the still earlier trade between Egypt and the holy land of Punt (B. C. 2500-1600); and thus to the pre-historic traffic from Thane coast to Persia, Arabia and Africa.

Buddhism : The question of the identification of Sopara with Solomon's Ophir is discussed in the account of Sopara given under Places of Interest. As far as information goes, the identification, though not unlikely, is doubtful, and the carving of Ashok's edicts (B. C. 225) remains the earliest known fact in the history of Thane coast. In the Fifth Rock Edict Ashoka says that he had appointed the Dharmamahamatras for the propagation of *Dharma* and for the happiness of those devoted to *Dharma* among the residents of the outlying provinces of his Empire such as the Yavaras, Kambojas, Gandharas, Rashtrikas and others of Aparanta (the western coast). As a matter of fact, a set of Ashoka's Rock Edicts was engraved at Sopara (ancient Shurparaka), the capital of Aparanta. Fragments of the eighth rock edict were discovered there several years ago and recently those of another edict have been found near the same place.

¹ Burnourf's Introduction, *A l' Histoire du Bouddhisme Indien*. 1. 235-270.

That Buddhism was introduced into Konkan during the reign of Ashoka is also stated in the historical chronicles *Dipavamsa* and *Mahavamsa* of Ceylon. The third Buddhist Religious Council was held at Pataliputra during the reign of Ashoka. It was presided over by Moggaliputta Tissa. At the close of it Tissa resolved that the law of Buddha should be communicated to foreign countries. He therefore dispatched missionaries to several countries including Aparanta. The *Dipavamsa*, a Pali chronicle of the fourth or fifth century A. D. tells us that Tissa sent the missionary Yona-Dhammarakkhita to Aparanta. He converted the people of that country by preaching the *Aggikhandhopama-sutta*. The *Mahavamsa*, a later Pali chronicle, gives further details that this missionary "poured out to the seventy thousand who had assembled before him the delicious (draught of the) true faith. A thousand males and a still greater number of females, descendants exclusively of Kshatriya families, impelled by their religious ardour, entered into the priesthood." The description is no doubt exaggerated, and some even doubt if any such missionary was actually sent to Aparanta. But there is no doubt that Buddhism spread in Konkan as in Maharashtra in the reign of Ashoka. This is also indicated by a large number of Buddhist caves which were soon excavated for the residence and worship of the Buddhist monks at a number of places along the western coast. The monks often travelled by sea. So many of these caves served as *Dharmashalas* for their residence. They are usually situated at the head of creeks in Konkan. The caves at Chiplun, Mahad and Kuda are, for instance, situated on the creeks of Dabhol, Bankot and Rajapuri, respectively. Formerly in Thane district there were five groups of caves in the small island of Sashti, viz., at Kanheri, Kondivte, Jogeshvari, Mandapeshvar and Magathan. Subsequently these were placed in the Bombay and Suburban District. Elsewhere they are situated at Jamburg, Kondane and Chandansar. The caves at Kanheri are specially noteworthy. The excavations include arrangements such as were required for a resident community. There are here in close proximity several *viharas* or monasteries for associations of devotees, a great number of solitary cells for hermits with halls for lectures and meetings and *chaityas* or temples with relic-shrines not out of proportion in number or size to the dwelling places. Outside the caves are reservoirs for water, a separate one for each cell, and couches or benches for the monks to recline on, carved out of the rock like everything else.

It is not known whether at the time of the mission the Konkan formed part of Ashoka's empire, or was under a friendly rule but from the way in which Aparanta is mentioned in Ashoka's Edicts, it appears that the rulers of this country who were the Mahabhojas

and Maharathis enjoyed a sort of independence though like several other provinces they acknowledged his suzerainty.

The Buddhist legend of Purna of Sopara belongs, in its present form, to the late or Mahayan School of Buddhism (A. D. 100-400), and is so full of wonders that it is probably not earlier than the third or fourth century after Christ. Its descriptions cannot be taken to apply to any particular date. They are given here as they profess to describe the introduction of Buddhism and the state of Sopara at that time, and as several of the particulars agree with recent discoveries near Sopara.

In the legend of Purna, translated by Burnourf from Nepalese and Tibetan sources apparently of the third or fourth century after Christ, Sopara is described as the seat of a king, a city with several hundred thousand inhabitants with eighteen gates and a temple of Buddha adorned with friezes of carved sandalwood. It covered a space 1,000 yards in area, and its buildings and towers rose to a height of 500 feet. It was a great place of trade. Caravans of merchants came from Shrawasti near Benares and large ships with '500' (the stock phrase for a large number) merchants, both local and foreign, traded to distant lands. There was much risk in these voyages. A safe return was the cause of great rejoicing; two or three successful voyages made a merchant a man of mark; no one who had made six safe voyages had ever been known to tempt providence by trying a seventh. The trade was in cloth, fine and coarse, blue, yellow and red and white. One of the most valued articles was sandalwood known as *goshirsh* or cow's head, perhaps from the shape of the logs. This was brought apparently from the Kanarese or Malabar coast. The coinage was gold and many of the merchants had great fortunes. A strong merchant guild ruled the trade of the city.

At this time the religion of the country was Brahmanism. There were large nunneries of religious widows, monasteries where seers or *rishis* lived in comfort in fruit and flower gardens, and bark-clad hermits who lived on bare hill-tops. The gods on whom the laymen called in times of trouble were Shiv, Varuna, Kubera, Shakra, Brahma, Hari, Shankar and divinities, apparently *matas* or Devis. Besides the gods, many supernatural beings, Asuras, Mahoragas, Yakshas and Danavas were believed to have power over men for good or for evil.

Purna, the son of a rich Sopara merchant and a slave girl, whose worth and skill had raised him to be one of the leading merchants of Sopara, turned the people of the Konkan from this old faith to Buddhism. Sailing with some Benares merchants to the land of the sandal tree, Purna was delighted by the strange songs which they chanted morning and evening. They were not songs, the merchants

told him, but the holy sayings of Buddha. On his return to Sopara Purna gave up his merchant's life and went to Benares where Gautama received him into the Buddhist priesthood. He urged that he might be allowed to preach to the people of the Konkan. The people of Konkan had the worst name for fierceness, rudeness and cruelty. Buddha feared that the patience of so young a disciple might not be proof against their insults "Purna", he said, "the men of the Konkan are fierce, cruel and unmannerly. When they cover you with evil and coarse abuse, what will you think of them?" "If the men of the Konkan cover me with evil and coarse abuse, I shall think them a kindly and gentle people for abusing me instead of cuffing or stoning me." "They are rough over-bearing fellows those men of the Konkan. What will you think of them, Purna, if they cuff you or stone you?" "If they cuff me or stone me, I shall think them kindly and gentle for using hands and stones instead of staves and swords." "They are rough set, Purna, those men of the Konkan. If they beat you with staves and cut you with swords, what will you think of them?" "If they beat me with staves or cut me with swords, I shall think them a kindly people for not killing me outright." "They are a wild people, Purna, if they kill you outright, what will you think of them?" "If they kill me outright, I shall think the men of the Konkan kindly and gentle, freeing me with so little pain from this miserable body of death." "Good, Purna, good, so perfect a patience is fit to dwell in the Konkan, even to make it its home. Go, Purna, freed from evil free others, safe over the sea of sorrow help others to cross, comforted give comfort, in perfect rest guide others to rest."

Purna goes to the Konkan, and, while he wanders about begging, he is met by a countryman who is starting to shoot deer. The hunter sees the ill-omened shaven-faced priest, and draws his bow to shoot him. Purna throws off his outer robe and calls to the hunter, "Shoot, I have come to the Konkan to be a sacrifice." The hunter, struck by his freedom from fear, spares his life and becomes his disciple. The new religion spreads. Many men and women adopt a religious life, and "500" monasteries are built and furnished with hundreds of beds, seats, tapestries, figured cushions and carved pedestals.

Purna becomes famous. A body of merchants in danger of shipwreck call on him for help, and he appears and stills the storm. On their return the merchants build a Buddhist temple in Sopara. Purna asks Buddha to honour the temple with his presence. He comes, with his chief disciples, flying through the air. On his way, apparently near Sopara, he stops at several places. At one of these places live '500' widows whom Buddha visits and converts. In answer to their prayer he gives them some of his hair and his nails, and they build a mound or *stupa* over them. The spirit of the Jetvan wood who had come

with Buddha from Benares, plants a branch of the *vakul* or *Mimusops elengi* tree in the yard near the *stupa*, and the *stupa* is worshipped, by some under the name of the Widows' *Stupa*, and by others under name of the *Vakul stupa*. This second name is interesting from its resemblance to the *Vakul* or *Brahma Tekri*, a holy hill about a mile to the south of Sopara, which is covered with tombs and has several Pali inscriptions of about the second century before Christ.

Accompanied by the '500' widows Buddha visited another hermitage full of flowers, fruit, and water, where lived '500' monks. Drunk with the good things of this life these seers or *rishis* thought of nothing beyond. Buddha destroyed the flowers and fruit, dried the water, and withered the grass. The seers in despair blamed Bhagavat for ruining their happy life. By another exercise of power, he brought back their bloom to the wasted fruit and flowers, and its greenness to the withered grass. The seers became his disciples and with the '500' widows of *Vakul* passed with Buddha, through the air, to the hill of Musala. On Musala hill there lived a seer or *rishi*, who was known as Vakhali or the bark-robe wearer. This *rishi* saw Buddha afar off, and, on seeing him, there rose in his heart a feeling of goodwill. He thought to himself, "shall I come down from this hill and go to meet Buddha, for he doubtless is coming here intending to convert me. Why should not I throw myself from the top of this hill?" The seer threw himself over the cliff, and Buddha caught him so that he received no hurt. He was taught the law and became a disciple, gaining the highest place in his master's trust. This passage has the special interest of apparently referring to the sage Musala who lived on the top of Padan rock near Goregaon station, about eighteen miles south of Sopara. From the Musala rock Buddha went to Sopara, which had been cleaned and beautified, and a guard stationed at each of its eighteen gates. Fearing to offend the rest by choosing any one guard as his escort, Buddha flew through the air into the middle of the city. He was escorted to the new temple adorned with friezes of carved sandalwood, where he taught the law and converted 'hundreds of thousands'. While in Sopara Buddha became aware of the approach of the Naga kings Krishna and Gautama. They came on the waves of the sea with '500' Nagas. Buddha knew that if the Nagas entered Sopara the city would be destroyed. So he went to meet them and converted them to his faith.

The relics found in the Sopara mound show that in the second century after Christ, Sopara had workers of considerable skill and taste. The bricks are of excellent material and the large stone coffer is carefully made, the lines are clear and exact, and the surface is skillfully smoothed. The crystal casket is also prettily shaped and highly finished. The brass gods are excellent castings, sharper and

truer than modern Hindu brassware. The skill of the gold and silver smiths is shown in the finely stamped silver coins, in the variety and grace of the gold flowers, and in the shape and tracery of the small central gold casket.

Short Pali inscriptions found on the *Vakul* or *Brahma* hill, about two miles south of Sopara, seem to show that about B. C. 200 the tribe of the Kodas or Kottas, who seem about that time to have been ruling near Mirat and afterwards (A. D. 190) near Patna, had a settlement at Sopara.

Under Ashoka the west coast of India was enriched by the opening of a direct sea-trade with Egypt, and apparently eastwards with the great Deccan trade centre of Tagara. But the direct trade with Egypt was never large, and it centred at Broach, not at Sopara.

After the death of Ashoka they seem to have declared their independence. In course of time one of these rulers, Satavahana by name, rose to power and established his supremacy over other local chiefs. He may have received support from some of the Maharathis with whom he formed matrimonial alliances. The family descended from him is called Satavahana just as that descended from Gupta became known as Gupta. Satavahana is not mentioned in the *Puranas*, probably because his kingdom was small. He is, however, known from some coins which have been found in Aurangabad district and Vidarbha. He had his capital at Pratishthana, modern Paithan, in Aurangabad district. The *Puranas* mention several later members of this family, which they call Andhra; but that the family originally belonged to Western Maharashtra is proved by its earliest inscriptions which have been discovered at Naneghat near Junnar and near Nasik. The *Puranas* call these kings Andhra because they were ruling in Andhra when the *Puranic* account of the dynasty was compiled in the third century A. D. The first king of this dynasty mentioned in the *Puranas* is Simuka and his kingdom probably comprised Pune, Nasik, Ahmadnagar and Aurangabad districts. Simuka was followed by a succession of rulers among whom could be mentioned Krishna, Satakarni I, Vedishri and Hala. Satakarni I seems to have extended his rule over the whole of the Deccan and performed *Rajasuya* and *Ashvamedha* and several other *Shrauta* sacrifices. During their rule Konkan was enriched by the great development of western trade, which followed the establishment of the Parthian empire under Mithridates I (B. C. 174-136) and the Roman conquest of Egypt in B. C. 30. Under the Romans the direct trade between Egypt and India gained an importance it never had under the Ptolemies. In a few years (B. C. 25) the Indian fleet in the Red Sea increased from a few ships to 120 sail. The Romans seem to have kept to the old Egyptian coasting route across the Persian Gulf to Karachi, till Hippalus discovered the monsoons about A. D. 47.

The monsoon was first used to carry ships to Zizerus (Janjira ?) and afterwards to Musiris, probably Muriyi-Kotta on the Malabar coast. The Roman passion for spices probably made the Malabar trade a more important branch. But the trade to Konkan was in some ways more convenient than to Malabar, and there was a well-known route along the Arab coast to Fartak Point, and from Fartak Point across to Konkan. It is doubtful which of the Konkan ports was the centre of the Egyptian trade ; the references seem to point to Simulla or Chaul and to Zizerus, perhaps Janjira or Rajapuri.

Little is known about Parthian rule in Persia (B. C. 255—A. D. 235). They are said to have been averse to sea going and opposed to commerce. But, according to Reinaud, under the Arsacidae or Parthian dynasty the Persians took a great part in oriental navigation. There was a considerable Indian trade up the Persian Gulf and by land to Palmyra, and it seems to have been under Parthian influence that the Persians overcame their horror of the sea and rose to be the greatest sea-traders in the east. The trade connection between Thane coast and the Parthian rulers in the Persian Gulf has a special interest at this period, as, in the later part of the first century after Christ or some years after Hala's reign the Satavahana or Andhras were driven from Konkan and North Deccan by foreigners, apparently Sythians or Parthians or Shaka Kshatrapas from North India.

Nahapana, A. D. 78 : The leader of these foreigners was Nahapana probably appointed by the contemporary Kushan emperor and his son-in-law Ushavadata, who, under Nahapana, seems to have been governor of Konkan and North Deccan. Nahapana seems at first to have been the general of a greater ruler in Upper India. He afterwards made himself independent and was the founder of the Kshatrapas, a Persian title meaning representative, agent or viceroy. This dynasty, which is also called the Sinh Dynasty, ruled in Kathiawad from A. D. 328. Ushavadata and his family had probably been converted to Buddhism in Upper India. Soon after conquering the Andhras, they ceased to be foreigners, married Hindus and gave up their foreign names. They did much for Buddhism and were also liberal to Brahmins. Several inscriptions of Ushavadata (Sanskrit, Rishabhadata) have been incised in the Pandu-lena caves near Nasik. Ushavadata was the son of Dinika and had married Dakshamitra, the daughter of Nahapana. These records in the Nasik caves describe the conquests and charities of Ushavadata, who was evidently governing Northern Maharashtra and Konkan on behalf of his father-in-law. We learn from them that Ushavadata gave away three hundred thousand cows, constructed *ghats* at the river Barnasa, gifted sixteen villages to gods and Brahmins, fed a hundred thousand Brahmins every year, got eight Brahmins of Prabhasa or Somnath Patan married at his expense,

constructed rest-houses, made gardens and tanks at Bharukaccha (Broach), Dasapura (Mandasor), Govardhana (near Nasik) and Sorparaga (Sopara), provided ferry-boats at the rivers Iba, Parada, Daman, Tapi, Karabena and Dahanuka, and founded some benefactions in the village Nanangola for Brahmins residing in Pinditakavada. Govardhana, Sorparaga and Ramatirtha. These inscriptions range in dates from the year 41 to 46, which are usually referred to the Shaka era. Nahapana, therefore, flourished in the first quarter of the second century A. D.

It is not definitely known where Nahapana had his capital. Some place it at Bharukaccha (Broach), while R. G. Bhandarkar located it at Junnar 'since the inscriptions at the place show the town to have been in a flourishing condition about that time and we have a record thereof the gift of his minister'. He next extended his rule to a large part of the peninsula, as his chargers are said to have drunk the water of the three oceans. The following provinces are specifically mentioned as comprised in his dominion :—Rishika (Khandesh), Ashmaka (Ahmadnagar and Bhir districts), Akara and Avanti (Eastern and Western Malwa), Suratha (Kathiawad) and Aparanta (North Konkan). That his empire extended much farther is shown by the description that the mountains Setagiri (Nagarjunikonda), Shristana (in the Karnul district) and Mahendra (between the Godavari and the Krishna) were situated in his kingdom. The great wealth of Konkan during the rule of the Satakarni kings is shown by many wonderful remains, the Kanheri caves near the National Park, Borivli, the Nashik caves on the route through the Thal pass, the works on the Nana pass, the Bedsa, Bhaja, Karle, and Kondane caves along the Bor pass route, the *stupa* at Sopara and perhaps those at Elephanta and Kalyan. Gautamiputra Satakarni was succeeded by his son Vasisthiputra Pulumavi, who also ruled over a large kingdom, but seems to have lost some northern provinces such as Akaravanti (Malwa) and Saurashtra (Kathiawad) and also Aparanta (North Konkan) to Rudradaman of the house of Chashtana. An inscription of a minister of his queen recording the gift of a cistern near a cave at Kanheri has been discovered, which shows that he had regained possession of North Konkan. Among his successors the most noteworthy was Yajñashri Satakarni whose inscriptions and coins have been found over a large area. They show that he ruled over a large kingdom extending from Konkan in the west to Andhradesha in the east. An inscription of Yajña Satakarni dated in the sixteenth regnal year incised in the *Chaitya* cave at Kanheri records the king's gift of a sum of money to the monks at Krishnagiri (Kanheri) to be put out at interest and also of a field in the village of Mangalasthana (modern Magathan in Bombay and suburban district). Some of the successors of Yajñashri mentioned in the *Puranas* are known only from

coins discovered at Terhala in Akola district. Thus the coins of Vijaya Satakarni and Pulumavi IV have been found in the Terhala hoard. Shivaskandha mentioned in the *Puranas* as the predecessor of Yajñashri is probably identical with Khada (i.e., Skanda) Satakarni, Shiva being only his epithet, which is also noticed in the case of some other kings of this dynasty. The Terhala hoard contained the coins of some other kings, e.g., Kumbha Satakarni and Karna Satakarni, who are not mentioned in the *Puranas*. On the other hand, Shaka Satakarni whose coins have been found in the Terhala hoard, may be identical with Mathariputra Svami-Shakasena who has left an inscription dated in the regnal year 8 in a cave at Kanheri. Another Satavahana king, not mentioned in the *Puranas*, but ruling in Western Maharashtra and Konkan was Vasishtiputra Chatrapana mentioned in a record at Naneghat dated in his thirteenth regnal year. R. G. Bhandarkar took Chatrapana to be a corrupt form of Sanskrit Chātushparṇa (or of Chaturapana). In either case it would be a queer name.

Within fifty years after Yajñashri Satakarni the rule of the Satavahanas came to the end. The Satavahanas were liberal patrons of learning and religion. As stated before, the early Satavahanas performed Vedic sacrifices and lavished gifts on the Brahmins. Krishna, Gautamiputra Satakarni, Pulumavi and Yajñashri Satakarni excavated caves and donated fields and villages for the maintenance, clothing and medicines of the Buddhist monks. Several caves were excavated for the worship and residence of the Buddhist monks at Bhoja, Kondana, Karhad, Bedsa, Karla, Nasik, Junnar and Ajanta during the rule of the Satavahanas. The oldest of them is a small *vihara* at Bhaja. It has no pillars in the hall; the principal ornaments are the *Dagoba*, the *Chaitya* arch and the rail pattern. There are store-beds in the cells, but no shrine or image of the Buddha. Many of the caves were excavated by private individuals. An inscription in Cave IV at Pitalkhora, for instance, states that it was excavated by Krishna, the son of Samasa of Dhenukakata. Dhenukakata is mentioned in some other cave inscriptions also and may be identical with Dahanu in the Thane district. The caves were decorated with various kinds of sculptures such as those of elephants, Yakshas, *dvarapalas*, Gaja-Lakshmi etc. The excellent *Chaitya* cave at Karla was caused to be excavated by a Shreshthin of Vijayanti (modern Banavasi in North Kanara District). The earliest caves at Ajanta also belong to the Satavahana period. Two of them, viz., Caves IX and X being *Chaityas* and two other Caves XII and XIII *viharas*. The *Chaitya* caves contain beautiful paintings. These remains prove great wealth both among the rulers and the traders, and show that the architects and sculptors were men of skill, and were probably foreigners. The chief cause

of the great wealth of Konkan was that the power of its rulers stretched across India to the mouth of the Krishna, and enabled them to bring to the Thane ports, not only the local inland trade but the rich products of the coast of Bengal and the far east through Masulipatam, Tagar and Paithan. During the age of the Satavahanas their capital Pratishtana attained a high level of prosperity. It was the centre of the trade-routes from Tagara (modern Ter in Osmanabad district) in the south to Ujjayini in the north, and to Nasik, Kalyan and Shurparaka in the west. The *Periplus* of the Erythrean Sea (circa 50 A. D.) mentions both Tagara and Pratishtana as important trading centres in the south. From them various kinds of merchandise were taken to Barygaza (Broach). From Pratishtana a great quantity of onyx stone and from Tagara a plentiful supply of fine linen cloth and all kinds of muslins and mallow-coloured stuffs and several kinds of merchandise were carried by wagons to the ports on the western coast. From Rome, on the other hand, excellent wine in large amphoras was imported. Pieces of these amphoras have been noticed in the archaeological excavations in Western Maharashtra as well as in Vidarbha.

Several other places in Thane and Kolaba districts are mentioned in the *Periplus*. Some of them are as follows :—

(1) Sopara, ancient Shurparaka, which was the capital of North Konkan before the rise of the Satavahanas. It is mentioned together with Dandaka (i.e., *Dandakaranya*) and Karahataka (Karhad) as conquered by Sahadeva in the *Mahabharata*. (2) Kalliona (modern Kalyan), which is described as a city raised to the rank of a regular mart in the times of the elder Sarganus (perhaps Gautamiputra Satakarni), but which was avoided by the Greek ships in the reign of Sandanes (perhaps Sundara Satakarni). (3) Semylla, modern Chaul, about 25 miles south of Bombay. (4) Mandagora, which is taken to be identical with Mandagada situated on the Rajpuri creek by some and with Bankot by some others.

Parthians, B. C. 255-A. D. 235 : Westwards there were special openings for a rich commerce. The Parthian emperors (B. C. 255-A. D. 235), however rude they might have been, had grown rich, luxurious and fond of trade. This was already the case in the time of Strabo (B. C. 30), and in the early part of the second century after Christ, during the forty years of rest (A. D. 116-150) that followed Hadrian's peace with Chosroes, the exchange of wealth between the Parthians and the Roman empires greatly increased. The markets of Palmyra were supplied not only from Gerrha near Bahrein across Arabia, but from the head of the Persian Gulf up the Euphrates by Babylon and Ketsiphon to the new (A. D. 60) mart of Vologesocerta. Palmyra inscriptions of the middle of the second century (A. D. 133, 141, 246)

show that merchants had a safe pass through Parthia, and that one of the main lines of trade lay through Volagesocerta. The details of this trade, perfumes, pearls, precious stones, cotton, rich silk, famous silks dyed with Indian purple and embroidered with gold and precious stones, point to a close connection with India, and through India, with China. Hindus seem to have settled at Palmyra for purposes of trade, as in 273, after the fall of Palmyra, Indians swelled the train of captives who graced Aurelian's triumph. Except ruins of Hatra, or Al-Hadhra, their own land contains few traces of Parthian buildings. But the great rock temples in and near Thane district, that date from the centuries before and after Christ, seem to have been planned and sculptured by Parthian or Persian artistes. Harpharan of Abulama, whose name appears in one of the Karla inscriptions, was probably a Parthian or Persian. And so closely alike are the animal capitals of the pillars at Karla, Bedsa and Nasik, to capitals at Persepolis and Susa, that, according to Fergusson the early Buddhists of Western India either belonged to the Persian empire or drew their art from it.

This close connection between India and Persia supports the view that the Palhavs who are mentioned with Shaks and Yavans in the *Vishnupuran* and in Nasik and Junagad inscriptions of the first and second centuries, and who figure as a dynasty in the Deccan between the fifth and seventh centuries, were of Persian or of Parthian origin. Like many other foreigners, these Palhavs have become Hindus and are lost in the great mixture of tribes which the name Maratha covers.

Ptolemy, A. D. 135-150 : Besides with the Persian Gulf, during the rule of the Satakarnis or Andhrabhrityas, the Konkan ports had a great trade with the Red Sea. गोमती नदी

The Konkan is the part of the west coast, which was best known to the Greeks at the time of the geographer Ptolemy (A. D. 135-150). It was from Greeks who had for many years traded to Symulla or Timulla, probably Chaul, that Ptolemy gained much of his information about Western India. And from the mention of gifts by Yavans to the Kanheri, Nasik, Karla and Junnar caves, some of the Greeks seem to have settled in the country and become Buddhists. So, also, Indians seem to have gone to Alexandria, and perhaps gave Ptolemy his surprising knowledge of places of Hindu pilgrimage. Ptolemy had the mistaken idea that the Indian coast stretched east and west instead of north and south. This confuses his account, but his knowledge of names is curiously exact and full. He divides the west coast into Surastrene or Saurashtra, corresponding to Kutch, Kathiawad and North Gujarat ; Larike, that is, *Lat Desh* or South Gujarat ; Ariake or the Maratha speaking country, the Marathas are still called Arli by the Kanarese of Kaladgi ; and Damurike, wrongly written Lymurike, the country of the Damils or Tamils. He divides his Ariake

or Maratha country into three parts, Ariake proper or the Bombay-Deccan, Sadan's Ariake or the North Konkan, and Pirate Ariake or the South Konkan. Besides Sopara and Symulla or Chaul on the coast, Nasik near the Sahyadris, and the great inland marts of Paithan and Tagar, Ptolemy mentions seven places in or near Thane, which can be identified.

Foreign trade, A. D. 150 : Ptolemy gives no details of the trade which drew the Greeks to the emporium of Symulla. But from the fact that the Satakarnis ruled the Deccan as well as the Konkan, there seems reason to suppose that it was the same trade which is described by the author of the *Periplus* as centering at Broach about a hundred years later. The chief trade was with the Red Sea and Egypt in the west, and apparently, inland by Paithan and Tagar to the shores of the Bay of Bengal, and across the Bay of Bengal, with Malacca or the Golden Chersonese and China. The chief exports to Egypt were, of articles of food, sesamum oil, sugar, and perhaps rice and ginger ; of dress, cotton of different kinds from the Deccan, and from the eastern coast silk thread and silk ; of spices and drugs, spikenard, coctus and long pepper ; of dyes, lac and indigo ; of ornaments, diamonds, opals, only stones found in large quantities near Paithan, and perhaps emeralds, turquoises and pearls ; of metals, iron or steel, and perhaps gold. The imports were wines of several kinds, Italian, Laodicean and Arabian ; of dress, cloth and variegated sashes ; of spices and drugs, frankincense, gum, stibium for the eyes, and storax ; of metals, brass or copper, tin, and lead, also gold and silver coins ; of ornaments, coral, costly silver vases, plate, and glass ; and of slaves, handsome young women for the king of the country.

The merchants of Thane ports were Hindus, Buddhism favouring trade, and owing many of its finest monuments to the liberality of Konkan merchants. Besides Hindus, the leading merchants seem to have been Greeks and Arabs, some of them settled in India, others foreigners. Christian traders from the Persian Gulf seem also to have been settled at Kalyan and Sopara. Except as archers no Romans seem to have come to India.

The shipping of the Thane coast included small coasting craft, medium-sized vessels that went to Persia, and large Indian, Arab, and Greek ships that traded to Yemen and Egypt. The Greek or Egyptian ships were large, well-found and well-manned, and carried archers as a guard against pirates. They were rounder and roomier than ships of war, and, as a sign that they were merchant-men, they hung a basket from the mast-head. The hull was smeared with wax and was ornamented with pictures of the gods, especially with a painting of the guardian divinity on the stern. The owners were Greeks.

Hindus and Arabs, and the pilots and sailors were Hindus and Arabs.

About the close of the second century (A. D. 178) Rudradaman, one of the greatest of the Kshatrap kings of Gujarat, recorded a double defeat of a Satakarni and the recovery of the North Konkan. When the author of the *Periplus* wrote, the Satakarnis had again lost their hold on Thane coast, and it had passed to a king named Sandanes who stopped all foreign trade. If Greek vessels, even by accident, came to a Konkan port, a guard was put on board, and they were taken to Barugaza or Broach. About A. D. 250 the Satavahanas were supplanted by Abhiras in Western Maharashtra and by the Vakatakas in Vidarbha. Ishwarsena was the founder of the Abhira dynasty and he started an era which later became known as the Kalchuri-Chedi era. He and his descendants whose names unfortunately do not occur in the *Puranas* seem to have ruled over a large territory comprising Gujarat, Konkan and Western Maharashtra. According to *Puranas*, the Abhiras ruled for 167 years. They seem therefore to have been supplanted in *circa* A. D. 415 by the Traikutakas, their former feudatories. They derived their name from Trikuta or a three-peaked mountain whose mention appears in the Anjaneri plates of Bhogshatti as Purva-Trikuta Vishaya which indicates that Trikuta was probably the name of the range of hills that borders Nashik district. From their inscriptions and coins we get the following genealogy of the Traikutakas :—

Maharaja Indradatta
son

Maharaja Dahrasena
son

Maharaja Vyaghrasena

That Thane district was included in the dominion of the Traikutakas is indicated by a copper-plate inscription discovered in a *Stupa* at Kanheri. Dr. Bird, who made the discovery, describes it as follows :—“Immediately in front of the large arched cave and on a ledge of the mountain, some thirty or forty feet below, there are several small *Topas* or monumental receptacles for the bones of a Buddha or Rahat, built of cut stones at the base. The largest of the *topas* selected for examination appeared to have been one time between twelve and sixteen feet in height. It was much dilapidated, and was penetrated from above to the base, which was built of cut stone. After digging to the level of the ground and clearing away the materials, the workmen came to a circular stone, hollow in the centre, and covered at the top by a piece of gypsum. This contained two small urns, in one of which were small ashes mixed with a ruby, a pearl, small pieces of gold and a small gold box containing a piece of cloth; in the other a silver box and some ashes were

found. Two copper-plates containing legible inscriptions in the Lath or cave characters, accompanied the urns and these, as far as I have yet been able to decipher them, inform us that the persons buried here were of the Buddhist faith. The smaller of the copper-plates bears an inscription in two lines, the last part of which contains the Buddhist creed."

The inscription on the larger copper-plate mentions that in the year 245 in the regime of the Traikutakas one Buddhanchi hailing from the village Kanaka in the Sindhu *vishaya*, erected, at Krishnagiri (modern Kanheri), in the *stupa* in which the plate was found and which he dedicated to the venerable Saradvatiputra, the foremost disciple of the Buddha. The last line mentions *dadha* or the canine tooth, probably of Saradvatiputra (Sariputta) a sacred relic on which the *Stupa* was erected.

The Kanheri plate mentions no king of the Traikutaka family by name, but it probably belongs to the reign of the successor of Vyaghrasena. During his reign the Trikota country was invaded by Harishena, the last known Vakataka king, who flourished in *circa* A. D. 475-500. Harishena may not have supplanted the ruling dynasty. As in other cases he may have been satisfied with exacting a tribute from it.

During this time the Sassanian dynasty (230-650) had risen to power in Persia. They were on terms of close friendship with the rulers of Western India, and became the leading traders in the eastern seas. In the beginning of the sixth century (A. D. 525) the Egyptian merchant and monk Kosmas Indikopleustes describes Kalyan (Kalliana) as the seat of one of the five chief rulers of Western India, a king who had from 500 to 600 elephants. Kalyan had much traffic with Ceylon which was then the great centre of trade in the east, sending copper, steel, ebony, and much cloth, and bringing back silk, cloves, caryophyllum, aloes and sandalwood. With the Persian Gulf there was much trade to Hira near Kufa, and to Oboleh. Of the exports to the Persian Gulf, one of the chief was timber for house-building, aloes, pepper, ginger, spices, cotton cloth and silk. The trade with Egypt began to fall off about the close of the third century, and by the sixth century it had almost ceased. The traffic with the African ports was brisk and had developed an import of gold. The merchants were Hindus, Arabs, Persians and perhaps Christians from Persia. The Hindus seem to have been as great travellers as during the times of Greek trade, and were found settled in Persia, Alexandria, Ceylon, Java and China.

After the Vakatakas, the Kalachuris became supreme in Gujarat, North Konkan and Maharashtra. The coins of Krishnaraja, the

earliest known Kalachuri king, have been found in the islands of Bombay and Sashti as well as in the districts of Nasik and Satara. In the copper-plate grants of the Kalachuris, Shankaragana, the son of Krishnaraja, is described as the lord of the countries between the eastern and western seas. Konkan must, therefore, have been included in the Kalachuri Empire but no grants of land by the Kalachuris have yet been found in Konkan, as they have been in Gujarat and Northern Maharashtra. Konkan was probably placed by them in charge of a feudatory family. As we shall see later, Konkan was then ruled by the Mauryas who had probably acknowledged the suzerainty of the Kalachuris.

The first known ruler of this dynasty, Krishnaraja, rose to power in *circa* A. D. 550. His coins have been found over a very wide territory including Maharashtra and Konkan and were in circulation for at least 150 years after the time of Krishnaraja. He was succeeded by Shankaragana and Buddharaja both of whom appear to have retained their hold upon the territory ruled over by Krishnaraja.

As stated before, north Konkan was ruled by the Mauryas who were probably feudatories of the Kalachuris. Their capital was Puri which has not yet been satisfactorily identified. Various places have been mentioned as the possible sites of this capital, viz., Thane, Kalyan, Sopara, Chaul, Mangalapuri (Magathan), Elephanta and Rajapuri in the former Janjira State. But Thane, Sopara and Chaul were known by other names in ancient times and have besides been mentioned in the same inscriptions with Puri. Gharapuri or Elephanta is too small an island to have served as a capital and, as pointed out by Cousens during the greater part of the monsoon it is cut off to a great extent by rough seas. Cousens proposed to locate the place at a site about a mile north of Marol village in the island of Sashti. This site is not far from Sthanaka (Thane), which is mentioned in many grants as the place of royal residence. This site is not, however, known by the name of Puri at present and has not many ancient remains such as one would expect at the site of a royal capital. Another identification suggested is with Rajapuri in the former Janjira State, but this place would be too far south for a capital of the Northern Shilaharas. The question cannot be definitely settled in the absence of conclusive evidence, but the fact that the only known stone inscription of the Mauryas was found at Vada in Thane district may lend colour to the location of Puri suggested by Cousens.

As stated before, the Mauryas were ruling in North Konkan in the sixth and early part of the seventh century A. D. Only one inscription of the royal family has been found so far, viz., that of king Suketuvarman, discovered at Vada in Thane district. As it is very much abraded it has not yet been deciphered and published.

According to the account given by Bhagvanlal, it records the installation of Kotishvara, by Simhadatta, son of Kumaradatta.

It is also probable that the group of figures in the Lonad caves, six miles south-east of Bhiwandi, which belong to the sixth or seventh century represent the court of a Maurya king.

It may be noted that during the reign of the great Naushervan (531-578) when the Persians were the rulers of the commerce of the eastern seas, the relations between Western India and Persia were extremely close. On the Arab (625-638) over-throw of Yexdjard III, the last of the Sassanians, several bands of Persians sought refuge on the Thane coast and were kindly received by Jadav Rana, apparently a Yadav chief of Sanjan. In the years immediately after their conquest of Persia the Arabs made several raids on the coasts of Western India ; one of these in 637 from Bahrein and Oman in the Persian Gulf plundered the Konkan coast near Thane.

The Chalukyas of Badami rose to power in the first half of the sixth century A. D. of which Pulkeshin I was the first independent king. He was succeeded by his son Kirtivarman I who is described as the night of destruction to the Nalas, the Mauryas of North Konkan and the Kadambas of Vasa Vasi in North Kanara. After the death of Kirtivarman, his brother Mangalesha succeeded him as his son Pulkeshin II was a minor. He defeated Buddharaja, the Kalachuri king and also Swamiraja of the Chalukya family whom he killed on the field of battle. Buddharaja however continued to rule for some years after his defeat and the Mauryas also continued to hold North Konkan undisturbed. Soon after Mangalesha lost his life in a civil war with his nephew Pulkeshin II. Pulkeshin had also defeated the Kalachuri king Buddharaja. He thus became the lord of three Maharashtras containing ninety-nine thousand villages.

Pulkeshin along with his general Chanda-danda next invested Puri, the capital of the Mauryas, which is described in the Aihole inscription as the goddess of fortune of the Western Ocean. He attacked it with hundreds of ships as large as rutting elephants. The Maurya ruler was probably killed in the encounter and his kingdom was annexed. Thereafter North Konkan was probably under the direct rule of Pulkeshin, like the adjoining district of Nasik, where a copper-plate grant of his has been discovered.

Pulkeshin obtained a resounding victory over Harsha and thereafter assumed the title of *Parameshvara* or Emperor. His capital was probably Nasik. Hiuen Tsang who must have visited him somewhere in Maharashtra has left a vivid description of Maharashtra and its people. "The soil is rich and fertile. The climate is hot ; the disposition of the people honest and simple ; they are tall of stature and of

a stern vindictive character. To their benefactors they are grateful ; to their enemies, relentless. If they are going to seek revenge, they first give their enemies a warning ; then each being armed, they attack each other with spears.... If a general loses battle, they do not inflict punishment, but present him women's clothes, and so he is driven to seek death for himself Each time they are about to engage in conflict, they intoxicate themselves with wine and then one man with a lance in hand, will meet ten thousand and challenge them to a fight. Moreover, they inebriate many hundred heads of elephants, which, rushing forward in mass, trample everything down so that no enemy can stand before them. The king, in consequence of possessing such men and elephants, treats his neighbours with contempt. He is of the Kshatriya caste and his name is Pulkeshin."

Pulkeshin divided his extensive empire among his relatives and trusted chiefs. Southern Gujarat was placed in charge of a Sendraka chief who also ruled in Konkan. The Sendraka rule continued for three generations.

Pulkeshin II who was killed in battle in *circa* A. D. 642 by the Pallava king Narsimhavarman was succeeded by his son Vikramaditya I. He appointed his younger brother Dharashraya-Jayasimha to govern south Gujarat, North Konkan and Nasik district. Jayasimha himself ruled over the Nasik district and appointed his elder son Shrashraya-Shiladitya to govern south Gujarat and his younger son Jayashraya-Mangalrasa to rule in North Konkan including Thane district. This event seems to have taken place in A. D. 669-70 as is evidenced from the recently-discovered Manor plates of Mangalrasa.

Jayasimha's younger son Mangalrasa, who assumed the *biruda* Jayashraya, is known to have made two land-grants. His Manor plates are dated in the *Shaka* year 613 (A. D. 691). They mention his *birudas* Vinayaditya, Prithivivallabha, Yuddhamalla and Jayashraya and record his grant of the village Dinaka, situated to the east of Manapura and included within the Kurata *vishaya* for the benefit of the temple of the Sun-god at Manapura. Manapura is now known as Manor in the Palghar taluka of the Thane district. The donated village Dinaka is now represented by the village Tena which lies only two miles east of Manor. Kurata, the headquarters of the *vishaya* in which Manapura was situated, is now called Kirat, twelve miles north-east of Palghar town. The second grant of Mangalrasa was found at Bulsar in Surat district. It has not yet been published, but it also was probably made in North Konkan, as it is dated in the *Shaka* year 653 (A. D. 731-32). Had it been made in Gujarat it would have been dated in the Abhira era which was then current there. Mangalrasa ruled from Mangalpuri which was probably founded by him. It is identified by some with Magathan (Mangalasthana), about half a mile east of the Borivli Station,

which contains several ancient remains of *Stupas* and *Chaityas* ; but this view does not seem to be correct. After the death of his elder brother Shrashtaya-Shiladitya, he was appointed to govern South Gujarat. He then placed his younger brother Avanijanashraya-Pulakeshin in charge of the territory. A copper coin of Mangalrasa, which is so far the only known coin of the Western Chalukyas and their related prince, has been published. It has the legend of Jayashraya on the obverse and the figure of an elephant with the trunk hanging down on the reverse.

From two land-grants recently discovered at Anjaneri, village near Trimbak in Nashik district, we have come to know of another feudatory family which ruled over Northern Konkan and Nasik district, in the seventh and eighth centuries A. D. This family claimed descent from Harishchandra, the famous legendary king of the solar race. Svamichandra, who rose to power in the reign of Vikramaditya I, was the founder of this family. He is said to have ruled over the entire Puri-Konkan country comprising fourteen thousand villages. In some later inscriptions the number of villages in North Konkan is stated to be fourteen hundred only. Svamichandra was treated by Vikramaditya I as his own son and was evidently placed by him in charge of North Konkan. This was perhaps before the appointment of Dharashraya-Jayasimha to the same post.

Three generations of this family are known from the two sets of Anjaneri plates : Svamichandra, his son Simhavarman and the latter's son Bhogashakti *alias* Prithivichandra, who made the grants. One of the grants is dated in the Abhira year 461 (A. D. 710-11). It records the grant of eight villages, *viz.*, Jayagrama, Ambe-Avangana, Palittapataka, Kokilakshaka, Kalahaka, Mudgahitaka, Kshemagirika and Annagrama together with certain rights, dues and taxes in favour of the god Narayana, who was named Bhogeshvara evidently after the king Bhogashakti and was installed in the temple at Jayapura, modern Jarwar Budruk near Anjaneri. Some of the villages granted by the charter can still be identified in the neighbourhood of Jayagrama, modern Jaikhera, in the Dindori taluka of Nashik district. The royal order for the payment of certain taxes was addressed to the residents of some *vishayas* (districts), of which Mahagirihara may be identical with Mahirihara mentioned in the Bhadana grant of the Shilahara king Aparajita. In that case, it may have comprised the country round Bhadana (near Bhivandi in Thane district).

Kirtivarman II, the last of the Early Chalukyas, was defeated by Dantidurga some time before A. D. 754 and though he continued to rule for a few years more, he had lost the paramount position in the Deccan. It may be noted that the Early Chalukyas were devotees of Vishnu but during their time Buddhism flourished in Maharashtra and Konkan.

The Rashtrakutas succeeded the Early Chalukyas in the Deccan. The real founder of the dynasty was Dantidurga who extended his rule to North Konkan.

This is shown by his Manor plates dated in the *Shaka* year 671 (A. D. 749-50). Manor is in Palghar taluka of Thane district. Dantidurga appointed a Governor named Aniruddha to govern the territory. He had his capital at Shripura, which is probably identical with Shirgaon on the sea-shore, about fourteen miles west of Manor and four miles from Palghar. The plates record the grant of the village Tambahika, modern Tamsahi, two miles from Manor, by certain representatives of the Mahajana (Corporation) of the Traividya of the place. The grant was made near the foot-prints of the god Brahma in favour of the temple of Badeshvara. This is an early reference to the worship of Brahma in the form of foot-prints. This grant shows that Konkan was placed in charge of a Governor appointed by Dantidurga and continued to be ruled in that manner until the establishment of the feudatory family of the Shilaharas in North Konkan later in the reign of Govinda III.

Dantidurga was succeeded by Krishna I. He completely shattered the power of Early Chalukyas. He established a branch of the Shilaharas in South Konkan. Krishna was not only a great conqueror but a great builder also and he got excavated the Shiv temple at Ellora. Krishna I was succeeded by Govinda II, Dhruva and Govinda III in that order, the last of whom extended the Rashtrakuta kingdom far and wide. His copper-plate grants have been found in all the divisions of Maharashtra.

Govinda III was succeeded by his son Amoghavarsha I. His reign was a troubled one. It seems that he won some more portion of North Konkan and placed it in charge of Pullashakti I. Pullashakti has stated in his Kanheri cave inscription that he was ruling over the whole Puri-Konkan country by the favour of Amoghavarsha I.

A copper-plate grant of Amoghavarsha I has been discovered at Sanjan in Thane district. It is dated in the *Shaka* year 793 and records the donation of the village Jharivallika from the twenty-four-village group adjacent to Sanjan to four Brahmins for the performance of the five great sacrifices (*panchamaha-yajna*). The donated village is now known as Zaroli. Its boundaries stated in the grant can all be identified in the northern part of Thane district. Thus the river Kalluvi, which bounded it on the east, is now called Kalu. The villages Uppalahatthaka, Nandagrama and Dhannavallika which formed its other three boundaries are identical with the modern villages Uplat, Nandgaon and Dhanoli, respectively. They lie in the respective directions of the donated village Zaroli.

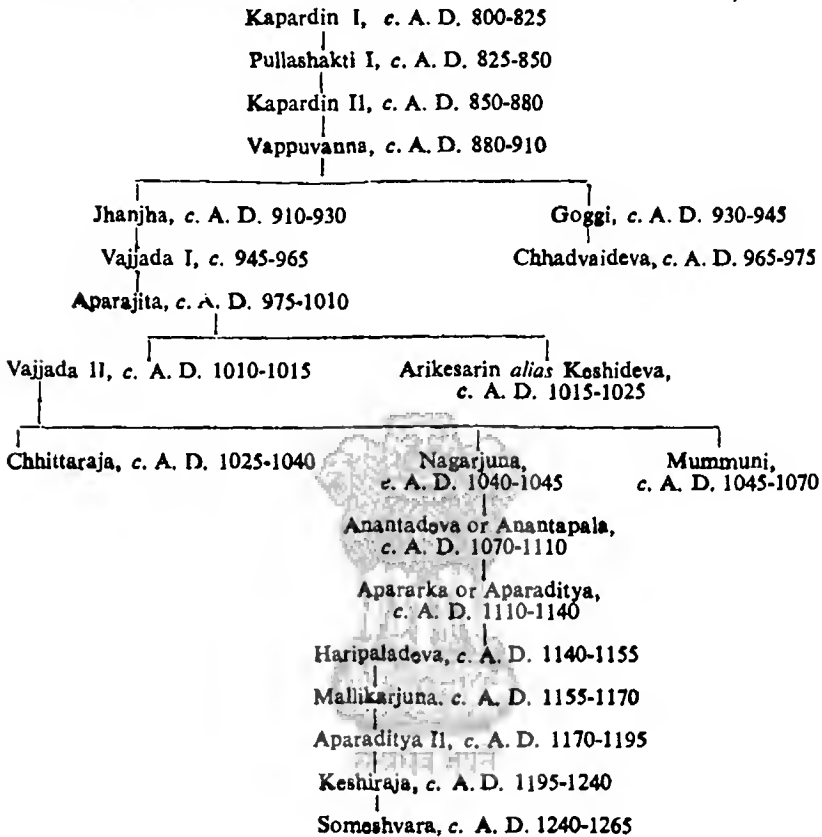
Another noteworthy Rashtrakuta king was Indra III who led a victorious campaign in North India. In the reign of Govinda IV the relations between the Rashtrakutas and the Kalachuris became strained and the latter defeated the former in a sanguinary battle fought on the bank of Payoshni. Govinda IV was deposed and his uncle Baddiga Amoghavarsha III was placed on the throne by the Rashtrakuta feudatories. His son and successor was Krishna III who by his conquests became the lord paramount of South India.

The Rashtrakuta power became weak after the death of Krishna III. Their last king Karka II was defeated and killed by Taila II, a *Maha-samanta* of the Rashtrakutas. The most famous of Taila's successors was Vikramaditya VI, the founder of the Chalukya-Vikram *Samvat*. He married a Shilahara princess at a *Swayamvara* held at Karhad. The last known Chalukya king Taila III was over-thrown by his general Kalachuri Bijjala in A. D. 1156. This Kalachuri usurpation lasted for more than two decades when in 1182 the Chalukya prince Someshvara IV conquered some provinces of his ancestral kingdom from the Kalachuris. The Chalukyas were however soon over-thrown by the Yadava prince Bhillama who rose to power in this period.

During the Rashtrakuta period a feudatory family established itself in the Northern and Southern Konkan and also in the Southern Maratha country. All the branches of this family traced their descent from the mythical Vidyadhara prince Jimutavahana who sacrificed himself to rescue a Naga from the clutches of Garuda. The family-name Shilahara (meaning food on a rock) is supposed to have been derived from this incident. The name is variously spelt as Shilahara, Shailahara, Shrilara and Silara; even the same inscription has more than one form, and one inscription has the three forms Silara, Shilara and Shrilara. Lassen suggests that the Shilaharas are of Afghan origin, as Silar Kafirs are still found in Afghanistan. But the southern ending *Ayya* of the names of almost all their ministers and the un-Sanskrit names of some of the Chiefs favour the view that they were of southern or Dravidian origin. The Shilaharas of South Konkan were the feudatories of Rashtrakutas and ruled from *circa* A. D. 765 to A. D. 1020. After the Rashtrakuta power became weak the last known ruler of this family, Rattaraja, declared his independence but Chalukya Jayasimha, the younger brother of Vikramaditya, over-threw him and appropriated his possessions.

North Konkan was conquered by the Rashtrakuta king Dantidurga sometime in the second quarter of the eighth century A. D. Kapardin I, the first known Shilahara king of North Konkan, was placed in charge of the country by the Rashtrakuta king Govinda III. Since then North Konkan came to be known as *Kapardi-dvipa* or *Kavadi-dvipa*. The capital of this branch was Puri, after which the country was called

The genealogy of this branch of the Shilaharas ruling over North Konkan may be stated as follows :—



Besides the Shilahara references, the only known Sanskrit notice of Tagar is in a Chalukya copper-plate found near Hyderabad in the Deccan and dated A. D. 612. As has been already noticed, the

reference to Tagar in Ptolemy and in the *Periplus* point to a city considerably to the east of Paithan, and the phrase in the *Periplus*, "That many articles brought into Tagar from the ports along the coast were sent by waggons to Broach", seems to show that Tagar was in communication with the Bay of Bengal, and was supported by the eastern trade, which in later times enriched Malket, Kalyan, Bidar, Golkonda and Hyderabad.

From numerous references and grants the Thane Shilaharas seem to have been worshippers of Shiv.

Kapardin I was succeeded by his son Pullashakti who has left a much-abraded inscription in Kanheri cave No. 73. It bore a date at the end which has now been almost completely effaced. Kielham doubtfully read it as *Shaka* 765 which appears quite possible, for Pullashakti's son and successor Kapardin II is known from two inscriptions dated *Shaka* 795-799.

In the Kanheri cave inscription Pullashakti is called *Mahasamanta* and is described as the lord of Puri-Konkana, which he had obtained by the favour of the Rashtrakuta king Amoghavarsha I. The inscription records the endowment of 24 *drammas* made by one Vishnugupta for the repairs of the cave as well as for the raiment and books of the monks dwelling in Krishnagiri (Kanheri).

Pullashakti was succeeded by his son Kapardin II who is called Laghukapardin in the records of his successors to distinguish him from his grand-father who also bore the same name. He seems to have come to the throne when quite young; for the Thane plates of Arikesarin tell us that though he was an infant, his enemies paid homage to him. Two inscriptions of his reign, dated in the *Shaka* years 775 (A. D. 854) and 799 (A. D. 877-78), in the Kanheri caves, record permanent endowments of some *drammas* for the raiment etc., of the monks dwelling in the caves.

They also seem to show that he was subordinate to the Rashtrakutas.

Kapardin II was followed by his son Vappuvanna, about whom his successors' records give only conventional praise. In his time a part of North Konkan comprising Samyana *mandala* (the territory round Sanjan in the north of Thane district) was given by the Rashtrakuta Emperor Krishna II to the Arab feudatory Madhumati. His family ruled in this region for at least three generations. A set of plates found at Chinchani in the Dahanu taluka of Thane district mentions Madhumati's son Sahiyarahara and grand-son Sugatipa, who was then ruling. Madhumati, Sahiyarahara and Sugatipa are evidently Sanskritised names of Muhammad, Shahariar and Subakta. This feudatory family often came into conflict with the Shilaharas. Madhumati is said to have conquered all ports on the western coast and established his out-posts in them. He did some charitable works. He established some

ferries for the crossing of rivers and also a charitable feeding house at Samyana for the use of travellers. He also made some grants of villages and land in favour of a temple of Bhagavati after obtaining the consent of his suzerain, the Rashtrakuta Emperor Indra III. These Arab feudatories seem to have continued to rule over the Samyana-*mandala* till the downfall of the Rashtrakutas in A. D. 974. Thereafter, the Shilahara king Aparajita overthrew them and annexed their territory to his own kingdom. Vappuvanna was followed by Jhanjha. He is mentioned by Al-Masudi as ruling over Samur (*i.e.*, Chaul in the Kolaba district) in A. D. 916. He was a very devout Shaiva. He is said to have built twelve temples of Shiva and named them after himself. None of them is now existing.

According to an unpublished copper-plate in the possession of Pandit Bhagwanlal, Jhanjha had a daughter named Lasthiyavva who was married to Bhillam, the fourth king of the Chandor Yadavas.

Jhanjha was succeeded by his younger brother Goggiraja, but about him and his successor Vajjada I, Shilahara inscriptions give only conventional praise. Vajjada was followed by his brother Chhadvaideva, who is omitted in all later records, probably because he was a usurper. He is known from his Prince of Wales Museum plates, which record the grant of some land in the village Salanaka in the *vishaya* of Panada. These places may be identified with Salinde and Poinad not far from Alibag in Kolaba district. The grant was promised by Vajjada, but remained unexecuted during his life time. Vajjada, on coming to know of it, issued these plates recording the gift.

Chhadvaideva was followed by his nephew Aparajita, the son of Vajjada. He has left three copper-plate grants. Two of these, found at Janjira, both dated in the same *Shaka* year 915 (A. D. 993), were issued by him after the overthrow of the Rashtrakutas by the Later Chalukya king Tailapa. But Aparajita, true to his erstwhile suzerain, gives the genealogy of the Rashtrakutas from Govinda I to Kakkala and regretfully records that the light of the last Rashtrakuta king was extinguished by the hurricane in the form of Tailapa. He did not himself submit to the Chalukyas, but began to assume high-sounding titles like *Pashchima-samudradhipati* (the Lord of the Western Ocean) and *Mandalika-trinetra* (the three-eyed god Shiva to his feudatories). He made several conquests. First, he seems to have proceeded against the Arab feudatory family ruling at Samyana and overthrowing it, annexed its territory to his own kingdom. Thereafter, we do not hear of this Arab kingdom on the western coast. He next conquered Punaka (Pune), Sangameshvara and Chiplun and thus extended his rule to Southern Konkan and the *Desha*. A verse in his Janjira plates states the boundaries of his kingdom as follows :—From Lata (Central and Southern Gujarat) in the north to Chandrapura (Chandor in the Goa

region) in the south and from the ocean in the west to the territory of Bhillama in the east. Another verse which occurs in the Kharepatan plates states that he gave shelter to Goma who had sought his protection. He firmly established Aiyapa on his throne and gave security from fear to Bhillama and Ammana. He thereby became famous as *Birudanka-Rama*. None of these princes except the Yadava king Bhillama have been identified.

Aparajita was an ambitious king. He sought to extend his sphere of influence by alliance with the mighty kings of other countries. He probably represents the Vidyadhara king Shikhandaketu, mentioned in the *Navasahasankacharita* of Padmagupta, who sent his son Shashikhanda to render help to the Paramara king Sindhuraja (A. D. 993-1010) in his invasion of South Kosala at the request of the Naga king of Bastar district (M. P.).

Aparajita's extensive conquests, his alliance with the Paramaras, his assumption of grandiloquent titles and his refusal to recognise the suzerainty of the Later Chalukyas exasperated Satyashraya, the son of Tailapa. He invaded the kingdom of Aparajita and pressed as far as the capital Puri. Ranna, the Kanarese poet, says that hemmed in by the ocean on one side and the sea of Satyashraya's army on the other, Aparajita trembled like an insect on a stick, both the ends of which are on fire. Satyashraya burnt Amshumagara in Konkan and levied a tribute of eleven elephants on Aparajita. This invasion seems to have occurred in *circa* A. D. 1005. Aparajita did not live long after this humiliation. He probably closed his reign in c. A. D. 1010.

Aparajita was succeeded by his son Vajjada II about whom only conventional praise is given in the records of his successors. An inscription from Hangal, however, tells us that Kundaladevi, the queen of the Kadamba king Chhattadeva (Shashthadeva II) (c. A. D. 1005-1055) was the daughter of the king Vachavya of Thani, *i.e.*, Thane. As Dr. Altekar conjectured this king of Thane was probably the Shilahara king Vajjada II.

Vajjada was succeeded by his younger brother Arikesarin *utias* Keshhideva I. While yet a prince, he had taken part in the Paramara king Sindhuraja's campaign in South Kosala (Chhattisgad) and had also marched with an army to Saurashtra where he worshipped Someshvara (Somanatha) after his conquests.

It was during the reign of Arikesarin that Konkan was invaded by the Paramara king Bhoja. Two of his grants made in celebration of the victory are dated in A. D. 1020, one in January and the other in September of the year. The causes of this invasion are not known. Dr. Bhandarkar thought that the invasion was undertaken by Bhoja to avenge the murder of his uncle Munja by the Later Chalukya king Tailapa. This reason does not appear convincing; for

there is an interval of 44 years between the murder of Munja (A. D. 975) and Bhoja's invasion of Konkan (A. D. 1019). Perhaps, as Dr. Altekar has suggested, Arikesarin acknowledged the suzerainty of the Later Chalukyas, which Bhoja did not like. Bhoja seems to have occupied North Konkan for some time as shown by his Betma plates. However, the Chalukya king Jayasimha, after overthrowing the Southern Shilaharas and annexing their kingdom, planned to invade North Konkan. The Miraj plates, dated in A. D. 1024, tell us that he was encamped at Kolhapur in the course of his campaign of North Konkan. It is not known if he conquered the country, but it is noteworthy that Chhittaraja, in his grant issued soon after this date in A. D. 1026, does not mention the suzerainty of the Chalukyas.

Chhittaraja succeeded his uncle Arikesarin some time before A. D. 1026, when he issued his Bhandup plates. These plates record the king's donation of a field in the village Noura situated in the *vishaya* (district) of Shatshashthi. The villages Gomvani and Gorapavali are mentioned in connection with the boundaries of the field. Shatshashthi is of course the island of Sashtthi. Noura is now called Nowohar and Gomvani goes by the name of Gowhan. Gorapavali probably occupied the same site as modern Bhandup. Two other records of the reign of Chhittaraja have been discovered, viz., the Berlin Museum plates issued by him and the Chinchani plates granted by his feudatory Chamundaraja are both dated in A. D. 1034. Chhittaraja may have reigned from A. D. 1025 to A. D. 1040.

The Shilaharas seem to have suffered a defeat about this time at the hands of the Kadamba king Shashthadeva II. As stated before, Aparajita, the grandfather of Chhittaraja, had raided Chandrapura, modern Chandor in Goa, and defeated the ruler who was probably Guhalladeva II, the father of Shashthadeva II. The latter took revenge in the beginning of the reign of Chhittaraja who was a mere boy at the time of his accession. From his capital Chandrapura Shashthadeva marched to the north. He first annexed South Konkan (called Konkan Nine hundred) and advancing further, he over-ran Kavadi-dvipa (North Konkan). The Narendra inscription describes this expedition in the following words :—"As he took Kavadi-dvipa and many other regions, built a bridge with lines of ships reaching as far as Lanka (*i.e.*, the Goa territory) and claimed tribute from grim barbarians, exceedingly exalted was the dominion of the Kadamba sovereign, which many called a religious estate for the establishment of the worship of Rama."

Shashthadeva, however, restored North Konkan to Chhittaraja on condition that he recognised his suzerainty. There was another attack on the Shilahara kingdom during the reign of Chhittaraja. Gonka of the Kolhapur branch of the Shilaharas (c. A. D. 1020-1055) calls

himself the lord of Konkan. He had evidently scored a victory over the Shilahara ruler of North Konkan; for he had already annexed South Konkan as a feudatory of the Later Chalukyas.

As stated before, Aparajita had conquered Samyana-mandala. His son Arikesarin gave it to a feudatory named Vijjaranaka who probably belonged to the Modha family. His son Chamundaraja was governing that *mandala* as a feudatory of Chhittaraja, whom he names as Chhinturaja in his Chinchani plates, dated *Shaka* 956 (A. D. 1034).

Chhittaraja was a patron of art and literature. He built the magnificent temple of Shiva at Ambarnath near Kalyan. He patronised Soddhala, the author of the *Udayasundarikatha*. He also patronised some other learned men and poets who were contemporaries of Soddhala.

Chhittaraja was succeeded by his younger brother Nagarjuna who had probably a short reign. He may be referred to the period A. D. 1040-1045. He was followed by his younger brother Mummuni or Mamvani in c. A. D. 1045. Three records of his reign have been discovered so far. The earliest of them, a copper-plate grant dated *Shaka* 970 (A. D. 1048), registers the donation of some villages in three *vishayas*, viz., Varetika, Abhyantara-shatshashthi and Shurparaka-Shatshashthi. Varetika, the chief town of the first of these, is probably the same as the modern village Vadavali, about six miles north of Thane. Abhyantara-shatshashthi included the territory around Thane, while Shurparaka-shatshashthi comprised that of around Sopara. Another grant of Mummuni is dated in *Shaka* 971 (A. D. 1049). It registers the gift of the village Kuchchhita in the Manadaraja *vishaya*. These places have not yet been identified. Mummuni also repaired the temple at Ambarnath which had been built by his eldest brother. He has left an inscription there, which is dated *Shaka* 982 (A. D. 1060).

The power of the Shilaharas weakened in the reigns of Nagarjuna and Mummuni. The latter had to acknowledge the suzerainty of the Kadambas of Goa. When Shashthadeva visited his court, he received him with great honour. The Narendra inscription describes this incident in the following words :—

“When the exalted valour of Chhattayadeva in his sport upon the ocean reached him, Mummuni of the famous Thaneya, hearing of it, came into his presence, saw him and led him to his palace and displayed intense affection; and he bestowed on him his daughter with much pomp, and gave to his son-in-law five lakhs of gold.”

As the power of the Shilaharas declined, the Modha feudatories of Samvana began to assert their independence and assumed the *birudas* of the Shilaharas themselves. The Modha prince Vijjal in his Chinchani plates dated *Shaka* 975 (A. D. 1053) calls himself the lord of

Tagarapura and bears the proud title of *Sharan-agata vajra-panjara*, which is usually met with in the Shilahara records. Mummuni seems to have overthrown this recalcitrant feudatory some time after *Shaka* 975 (A. D. 1053), the last known date of the prince Vijjala of this family.

Mummuni, like his two brothers, was a patron of poets and learned men. Soddhala composed his *Udayasundarikatha* in his reign and recited it in his court. Mummuni greatly appreciated it and rewarded the author liberally. Soddhala thereafter repaired to the court of Vatsaraja, the king of Lata, but he mentions with gratitude the honour he received at the Shilahara court during the reigns of the three brothers Chhittaraja, Nagarjuna and Mummuni.

There was a civil war (*dayada-vyasana*) towards the close of Mummuni's reign, but the contending parties are not known. Taking advantage of it, some foreign king, perhaps Guhalla II, the Kadamba contemporary of Mummuni, invaded the territory. He is said to have devastated the country and harassed gods and Brahmins. Anantapala, also called Anantadeva, the son of Nagarjuna, rescued the country from this calamity. Guhalla perhaps had secured the aid of some Muslim chief in this invasion. The Kharepatan plates record that Anantapala routed the desperate and vile Yavana (Muslim) soldiers and inscribed his fame on the disc of the moon.

Only one inscription of Anantapala has been found, viz., the Kharepatan plates dated in *Shaka* 1016 (A. D. 1094). It states that he assumed the title of *Pashchima-chakravarti* and claimed to be the ruler of the entire Konkan country including Puri Konkan. The inscription exempts the ships of certain ministers of his from the customs duty levied at the ports of Sthanaka, Shurparaka, Chemulya and others.

Hostilities with the Kadambas seems to have broken out again at the close of the reign of Anantapala. Jayakeshin II, the valiant king of Goa, invaded North Konkan and in the encounter that followed, killed the Shilahara king. The Degamve inscription describes him as Death to the king of Kavadi-dvipa. After this, Jayakeshin annexed North Konkan. The Narendra inscriptions dated in A. D. 1125 and 1126 describe him as governing Kavadi-dvipa, a lakh and quarter, in the time of the Chalukya Emperor Tribhuvanamalla (Vikramaditya VI). The Shilahara prince Aparaditya I was reduced to great straits. His Vadavali plates describe this calamity very graphically. "A demon named Chhittuka invaded the kingdom and the feudatories sided with him. Dharma was lost, the elders were oppressed, the subjects became exhausted and the country's prosperity was at an end. Still undaunted, Aparaditya single-handed rushed to the battle on horse-back, relying on his power of arms and his sword. Then the

enemy knew not whether to fight or to flee. He took shelter with the Mlenchchhas.”.

The demon Chhittuka mentioned in this passage is probably none other than the Kadamba king Jayakeshin II. As Dr. Altekar has pointed out, Jayakeshin had two sons Shivachitta and Vishnuchitta and he himself may well have borne a name like Chhittuka. Aparaditya thus completely routed the enemy and regained his ancestral kingdom. The date of this event can be settled precisely. As stated before, the Narendra inscriptions dated in A. D. 1125 and 1126 describe Jayakeshin as the ruler of Kavadi-dvipa. Aparaditya I seems to have defeated him and recovered the whole Konkan country in the following year A. D. 1127, when his Vadavali plates were issued.

Aparaditya had ambassadors at the courts of important kings. This is shown by the mention of his ambassador Tejahkantha who was present in the assembly when the work *Shrikanthacharita* of Mankha was recited in the court of king Jayasimha of Kashmir (A. D. 1128-1150). He is described as the ambassador of king Aparaditya of Konkan. He is said to have defeated an opponent in a *shastrartha* at Shurparaka where he was halting on his way to Kashmir. This Aparaditya must be identified with the first Shilahara king of that name.

Aparaditya I was a versatile man. He took keen interest in music and was also proficient in *Dharmashastra*. His commentary *Apararka* on the *Yajnyavalkya-smṛiti* is still regarded as the standard work on *Dharmashastra* in Kashmir. It seems to have been introduced there by the aforementioned ambassador Tejahkantha.

Aparaditya was followed by Haripaladeva, several of whose inscriptions ranging in dates from *Shaka* 1070 to *Shaka* 1076 have been discovered in Thane district. He may, therefore, have reigned from c. *Shaka* 1062 to *Shaka* 1077 (A. D. 1140 to A. D. 1155); from his reign onwards we get only stone inscriptions and they are mostly written in a mixed language of Sanskrit and Marathi. As the inscriptions of Haripaladeva do not give any genealogy, it is not possible to say how he was related to his predecessor, Aparaditya. These inscriptions record gifts made by ministers, private individuals or village communities. The mention of a Sahavasi Brahmin in one of them is interesting. These Brahmins became known later as Savashe Brahmins.

Mallikarjuna, who succeeded Haripaladeva, is known from two inscriptions—one found at Chiplun in Ratnagiri district and the other at Vasai in Thane district. The former is dated in the *Shaka* year 1078 (A. D. 1156) and records the appointment of one Supaya as *Dandadhipati* (Military Officer) in charge of the country of Pranalaka. This country has not been identified, but it must have been situated in the vicinity of Chiplun. The Vasai inscription is dated in *Shaka* 1083

(A. D. 1161). It records the *jirnoddhara* (repairs) of a temple of Shiva and the gift of a garden in Lona (modern Lonad in Bhiwandi taluka) to an *Upadhyaya*.

In his *Kumarapalacharita* Hemachandra gives a graphic description of Mallikarjuna's battle with the forces sent by the Chalukya king Kumarapala. According to Merutunga's account, Kumarapala is said to have felt offended by the title *Rajapitamaha* assumed by Mallikarjuna and sent an army to invade his territory. His General Ambada was defeated by Mallikarjuna and feeling disconsolate, he repaired to Krishnagiri (Kanhari), where he spent some days in black clothing. Coming to know of it, Kumarapala sent heavy reinforcements which enabled Ambada to inflict a disastrous defeat on Mallikarjuna. Mounting daringly the elephant he was riding, he cut off the head of the Shilahara king, which he presented to Kumarapala in the assembly attended by seventy-two feudatories. There is much exaggeration in this account, but Hemachandra also records that Mallikarjuna was killed in the fight. Kumarapala thereafter became the suzerain of the Shilaharas.

Mallikarjuna was followed by Aparaditya II, but his relation to his predecessor is not known. Three inscriptions of his reign, dated in *Shaka* 1106, 1107 and 1108 have been discovered at Lonad, Thane and Parel, respectively. In one of them Aparaditya is mentioned with the imperial titles *Maharajadhiraja* and *Konkana-chakravarti*, which show that he had thrown off the yoke of the Gujarat Chalukyas. He may be referred to the period A. D. 1170-1195.

Aparaditya's successor Keshhideva is known from two stone inscriptions. The earlier of them is dated in *Shaka* 1125 and was found at Mandavi in the Vasai taluka. It records some grant at the holy place of Mandavali in the presence of the god Lakshminarayana. The second inscription, found at Lonad, is dated *Shaka* 1161 (A. D. 1239-40). It states that Keshhideva was the son of Apararka and records the grant of a field or hamlet named Bapagrama (modern Babgaon near Lonad) to four worshippers of a Shaiva temple. As the two dates of Keshhideva are separated by as many as thirty-six years, he may have had a long reign of forty or forty-five years. He may, therefore, be referred to the period A. D. 1195-1240.

The successor of Keshhideva was Someshvara, who, like Aparaditya, assumed the imperial titles *Maharajadhiraja* and *Konkana-Chakravarti*. Only two inscriptions of his reign are known. The earlier of them, dated in *Shaka* 1181 (A. D. 1259) was found at the village Ranvad near Uran (Uran taluka) and the later, dated *Shaka* 1082 (A. D. 1260), at Chanaje in the same taluka. Both of them record royal grants, the former to some Brahmins and the latter to the temple of Uttareshvara in the capital of Sthanaka.

Someshvara is the last known Shilahara king of North Konkan. In his time the power of the Yadavas of Devagiri was increasing. The Yadava king Krishna (A. D. 1247-1261) sent an army under his general Malla to invade North Konkan. Though Malla claims to have defeated the Shilahara king, the campaign did not result in any territorial gain for the Yadavas. Mahadeva, the brother and successor of Krishna, continued the hostilities and invaded Konkan with a large troop of war-elephants. Someshvara was defeated on land and betook himself to the sea. He was pursued by Mahadeva. In the naval engagement that followed, Someshvara was drowned. Referring to this incident Hemadri says that Someshvara preferred to drown himself and face the submarine fire rather than the fire of Mahadeva's anger. The scene of this fight is sculptured on some Virgal stones found near Borivali station in Bombay. 'Some of the stones show the land battle in which the elephants took part, while others depict the lines of vessels propelled by oars, both in advance upon the enemy and in the melee itself. Since Mahadeva's force was strong in elephants and the stone from the sculptures upon it appears to belong to the 12th or 13th century A. D., it is quite possible as Cousens has suggested, that these stones may be commemorating the heroes who fell in the battle between Someshvara and Mahadeva.

The battle may have taken place in c. A.D. 1265. Thereafter the Yadavas appointed a governor named Achyuta Nayaka to rule over North Konkan. His Thane plates are dated in A. D. 1272. Thereafter, we get several inscriptions of the Yadavas from North Konkan.

Though with few exceptions, the names of the Thane Shilaharas are Sanskrit, the names of almost all their ministers and many of the grantees point to a Kanarese or a Telugu source. They appear to be southerners, and *ayyas* or high-caste Dravidian Hindus seem to have had considerable influence at their court. Kayasths, probably the ancestors of the present Prabhus, are also mentioned.

Though their grants are written in Sanskrit, sometimes pure sometimes faulty, from the last three lines of one of their stone inscriptions, the language of the country appears to have been a corrupt Prakrit, the mother of the modern Marathi. The same remark applies to the names of towns. For, though inscriptions give such Sanskritized forms as Shri-Sthanak, Shurparak, and Hanjaman or Hanyaman the writings of contemporary Arab travellers show that the present names Thane, Sopara and Sanjan were then in use.

On the condition of the Shilahara kingdom the inscriptions throw little light. The administration appears to have been carried on by the king assisted by a great councillor or great minister, a great minister for peace and war, two treasury lords, and sometimes a (chief) secretary. The subordinate machinery seems to have consisted of heads

of districts *rashtras*, heads of sub-divisions *vishayas*, heads of towns, and heads of villages. They had a king's high road, *rajpath*, passing to the west of the village of Gomvani a little north of Bhandup, following nearly the same line as the present road from Bombay to Thane and there was another king's high-road near Uran. At their ports, among which Sopara, Thane, Chaul, and perhaps Nagothana are mentioned, a customs duty was levied. The *dramma* was the current coin. The Shilaharas seem to have been fond of building. The Muhammedans in the beginning of the thirteenth century and the Portuguese in the sixteenth century destroyed temples and stone-faced reservoirs by the score. The statements of travellers and the remains at Ambarnath, Pelar, Atgaon, Parel, Walkeshvar in Bombay, and Lonad prove that the masonry was of well-dressed close-fitting blocks of stone, and that the sculptures were carved with much skill and richness. Many of them seem to have been disfigured by indecency. Some of the Shilaharas seem to have encouraged learning. One of them Aparaditya II (1187) was an author, and another Aparaditya I (1138) is mentioned as sending a Konkan representative to a great meeting of learned men in Kashmir.

Musalman writers supplement the scanty information which local sources supply of Thane under the Shilaharas.

The chief local centres of trade were Thane, which is mentioned as a mart by the Arab writers of the ninth and tenth centuries, as a pretty town in the twelfth century, and as the headquarters of a chief and a place of much traffic and of many ships at the end of the thirteenth century. Chaul (Saimur) is mentioned as place of trade and a great city in the tenth and eleventh centuries, and as a large and well-built town in the twelfth. Sanjan was a mart and great city in the tenth century, and large and prosperous in the twelfth. Sopara was a mart in the tenth and eleventh centuries, and one of the chief marts in India in the twelfth. The chief ports with which the Thane coast was connected were Kulam or Quilon and Kalikat in Malabar; Broach, Cambay and Somnath in Gujarat; Dihval in Sindh; Basrah, Obollah, Siraf, Kis and Ormuz on the Persian Gulf; Kalatu or Kalhat, Dufer, Shehr and Aden on the east Arabian coast; Socotra at the mouth of the Red Sea; Jidda within the Red Sea; Zaila, Makdsha, Mombaza and Quilon on the African coast; and Kalah in the Malay Peninsula, Java, Malacca and China.

The articles that formed the trade of the Thane ports were : of food, rice grown in the Konkan and sent to the Arabian and African ports; salt made in the Thane creeks and sent in bags inland to Devgiri and other Deccan centres, coconuts, mangoes, lemons and betel nuts and leaves grown in Thane and probably sent inland and by sea to Sindh, the Persian Gulf and the Arabian coast; dates from Shehr in

Arabia and from the Persian Gulf used locally and sent inland ; honey produced in Thane and wine from Arabia and Persia apparently little used. Of spices, pepper, ginger, cinnamon and cloves came from Java and Ceylon in Chinese ships and from the Malabar coast. Of articles of dress, cotton was brought from Khandesh and the Deccan either worked into cloth or sent raw to Ethiopia. Good cotton cloth of Konkan or Deccan weaving went to Ceylon, the Straits and China ; and delicate and beautiful fabrics, probably the muslins of Burhanpur and Paithan, went to Kalikat and probably to Persia and Arabia. Silks were made locally and probably brought from Persia and from China. There was a large manufacture of laced shoes in Sopara and Sanjan, and a great export of excellent leather, chiefly to Arabia. Of precious stones, pearls were found in the creeks near Sopara, and were brought from Travankor, from Ceylon and from Sofala in Africa, emeralds, equal to the best brightness and colour but hard and heavy, were exported from Sanjan, coral was brought from the Red Sea ; and ivory was brought from Sofala and Madagascar and used locally and sent to the Persian Gulf. Of drugs and perfumes, Thane was famous for the drug *tabashir*, which was made from the inner rind of the bamboo and sent to all marts both east and west, brown incense, probably the resin of the *gugal*, *Balsamodendron mukul*, perhaps the bdellium of the ancients, was gathered in the Thane forests and probably sent to Arabia and China ; white incense was brought from the Arabian coast ; sandalwood and ambergris came from Socotra and the African coast ; and aloes, camphor, sandal, sapan or Brazil wood, lign aloes or eaglewood, and spikenard from Siam, Java, Sumatra and Borneo, either direct or through Ceylon. Of tools and house-gear porcelain came from China for local use and for export to the Deccan, and swords from the west through Persia. Of articles used as money, cauries came from the Maldives and from Sofala in Africa, dirhams from Khurasan and dinars from Sindh, gold-dust from Sofala, and gold and silver from Malacca, Sumatra and China. Of other metals, iron was brought from Sofala and made into steel, copper was brought from Persia and from China in large quantities as ballast, and lead and tin came from Malacca. Of timber, teak and bamboos were sent from Sanjan to the Persian Gulf and there used for house-building, and fancy woods, such as sandal and Brazil wood, were brought from Kalah in the Malay Peninsula. The chief trade in animals was, towards the close of the period (1290), a great import of horses from the Persian Gulf and from Arabia. No ships came to Thane without horses, and the Thane chief was so anxious to secure them that he agreed not to trouble the pirates so long as they let him have the horses as his share of the plunder. This great demand for horses seems to have risen from the scare among the Hindu rulers of

the Deccan caused by the Musalman cavalry. As many as 10,000 horses a year are said to have been imported. Of human beings, women, eunuchs, and boys are said to have been brought by Jews through the Persian Gulf, and slaves are mentioned as sent from Sofala in Africa.

The merchants who carried on the Thane trade were local Hindu, Musalman, and Parsi traders, and Hindus and Musalmans from Gujarat and from the Malabar coast. There were also foreign Persians and Arabs, Jews, Europeans and perhaps a chance Chinaman. The fact noticed by several of the Arab writers of the ninth and tenth centuries that the language of the Thane ports was Lar, seems to show that, as is still the case in Bombay, the trade tongue of the Thane ports was Gujarati, and the leading traders were probably Gujarati Vanis. The local Musalman merchants, settlers chiefly from the Persian Gulf, held a strong position. In 916, when Masudi visited Chaul, there were 10,000 Persian and Arab settlers in that city alone. The Balharas or Shilaharas were famous for their kindness to Arabs, allowing them to have mosques and a headman to settle disputes. By the beginning of the tenth century the Parsis seem to have risen to wealth in Sanjan, and to have spread and built fire-temples in Chaul. Hindus, as in former periods, freely left their homes and crossed the seas. Hiweun Thsang, about 650, heard that in Saurashthan probably Ctesiphon in Persia, there were several Brahmin and Buddhist monasteries. In the best days of Bagdad Khalifat (700-900), learned Hindus were much sought for, and many physicians and astronomers were settled at the court of the Khalifs, and afterwards (1290) at the court of Arghun, the Moghal king of Persia. Indian merchants were settled in Arabia and at Kish in the Persian Gulf. Of foreign merchants, besides Persians and Arabs, the great carriers at the beginning of the tenth century were Jews. They could speak Persian, Greek, Latin, French, Spanish and Russian, and passed to India either down the Red Sea or by Antioch and Bagdad through the Persian Gulf. At the same time, Russian, Spanish and French merchants also passed through Mesopotamia to India.

The ships that carried the trade of the Thane ports were Konkan, Gujarat and Malabar vessels, boats built in the Persian Gulf, and perhaps an occasional junk from Java or China. The Thane or other West Indian ships went to Obollah in the Persian Gulf, to the Arab and African ports, and as far as China. The Arab vessels, some of which were built at Shiraz in the Persian Gulf, were of two kinds, a larger that sailed to Africa, Calcutta, Malacca and China, and a smaller that went to India. Marco Polo described the ships of the Persian Gulf; perhaps these were the smaller vessels as wretched affairs with no iron, bound with wooden bolts, and stitched

with twine. They had one mast, one sail, one rudder and no deck. A cover of hides was spread over the cargo, and on this horses were put and taken to India. It was a perilous business voyaging in one of these ships, and many were lost. Great Chinese junks occasionally visited the Thane ports. The war-ships shown in the Eksar memorial stones of the eleventh or twelfth century are high-peaked vessels with one mast and nine or ten oars aside.

The chief sailors were Hindus, Arabs and Chinese. European travellers had no high opinion of their skill or courage as seamen. According to John of Monte Cornino (1292) the Persian Gulf mariners were few and far from good. If a ship made her voyage it was by God's guidance, not by the skill of man. Though all made voyages across the sea, they preferred as much as possible to hug the coast.

Besides storms the Indian seas were full of dangers. Whales, water-spouts and the giant bird the Ruk kept seamen in unceasing alarm. But the worst of all dangers was from pirates. During the greater part of this period the sea swarmed with pirates. In the eighth and ninth centuries, Saugars, Kerks and Meds sallied from the coasts of Sindh, Cutch and Kathiawad, and ravaged the banks of the Euphrates and even the coasts of the Red Sea as far as Jidda. In the seventh century the islands of Bahrein in the Persian Gulf were held by the piratical tribe of Abdul-kais, and in the ninth century (880) the seas were so disturbed that the Chinese ships carried from 400 to 500 armed men and supplies of naphtha to beat off the pirates. Towards the close of the thirteenth century Marco Polo found Bombay harbour haunted by sea-robbers. From the Malabar and Gujarat ports number of corsairs, as many as hundred vessels, stayed out the whole summer with their wives and children. They stretched, five or six miles apart in fleets of from twenty to thirty boats, and whenever he caught sight of a merchant vessel, he raised a smoke, and all who saw, gathered, boarded, and plundered the ship, but let it go hoping again to fall in with it. Socotra was still frequented by pirates who encamped there and offered their plunder for sale.

While its local rulers were the Shilaharas, the overlords of the Konkan, to whom the Shilaharas paid obeisance during the latter part of the eighth and the ninth centuries, were the Rashtrakutas of Malkhet, sixty miles south-east of Sholapur. Their power for a time included a great part of the present Gujarat where their headquarters were at Broach. The Arab merchant Sulaiman (A. D. 850) found the Konkan (Komkam) under the Balhara, the chief of Indian princes. The Balhara and his people were most friendly to Arabs. He was at war with the Gujar (Juzr) king, who, except in the matter of cavalry, was greatly his inferior. Sixty years later Masudi (916) makes

the whole province of Lata, from Chaul (Saimur) to Cambay subject to the Balhara, whose capital was Manir (Malkhet) the great centre in the Kanarese-speaking country about 640 miles from coast. He was overlord of the Konkan (Kemker) and of the whole province of Lata in which were Chaul (Saimur), Thane and Sopara, where the Lariya language was spoken. The Balhara was the most friendly to Musalman of all Indian kings. He was exposed to the attacks of the Gujar (Juzr) king who was rich in camels and horses. The name Balhara was the name of the founder of the dynasty, and all the princes took it on succeeding to the throne. When Masudi (916) was in the Konkan, the province of Lata was governed by Jhanja the fifth of the Shilahara rulers.

For fifty years more (950) the Rashtrakutas continued to be overlords of the Konkan, and of Lata as far north as Cambay. Soon after the beginning of the reign of Mulraj (943-991), the Chaulukya or Solan ruler of North Gujarat, his dominions were invaded from the south by Barap or Dvarap, the general of Tailap II (973-997), the Deccan Chalukya who afterwards (980) destroyed the power of the Rashtrakutas. Barap established himself in South Gujarat or Lata, and according to Gujarat accounts, towards the close of Mulraj's reign was attacked and defeated, though after his victory Mulraj withdrew north of the Narmada. In this war Barap is said to have been helped by the Chief of the islands, perhaps a reference to the Thane Shilaharas. It appears from a copper-plate found in Surat that after Mulraj's invasion, Barap and four successors continued to rule Lata till 1050.

Between the over-throw of the power of Malkhet (A. D. 970) and the establishment of the overlordship of Gujarat (A. D. 1151), the Shilahara rulers of the North Konkan claim independence, and during at least part of this time, Thane was the capital of the Konkan. Between the death of Mulraj (997) and the succession of Bhimdev I (1022-1072), the power of Gujarat did not increase. But Bhimdev took the title of Raja of Rajas, and spent most of his reign in spreading his power northwards and in a great contest with Visaldev of Ajmir. Neither Bhimraj nor his successor Karan (1072-1094) advanced his borders to the south. Nor does Sidhraj (1094-1143), the glory of the Gujarat Chalukyas, though he spread his arms over so much of the Deccan as to fill with fear the chief of Kolhapur, seem to have exercised control over the Konkan. Idrisi (1135), whose details of Anhilvada (Nahrawara) seem to belong to Sidhraj's reign, calls him King of Kings. He shows how healthy and prosperous Gujarat then was, but gives no information about the extent of Sidhraj's power. Idris's mention of Thane (Bana) seems to show that it was unconnected with Gujarat, and this is borne out by the account of Kumarpal's (1134-1174) invasion of the Konkan. Hearing that

Mallikarjun (a Shilahara) king of the Konkan, the son of king Mahanand, who was ruling in the seagirt city of Shatanand, had adopted the title of Grandfather of Kings. *Rajapitamaha*, Kumarpal sent his general Ambad against him. Ambad advanced as far as the Kaveri (Kalvini) near Navasari, crossed the river, and in a battle fought with Mallikarjun on the south bank of the river, was defeated and forced to retire. A second expedition was more successful. The Kaveri was bridged, Mallikarjun defeated and slain, his capital taken and plundered, and the authority of the Anhilvada sovereign proclaimed. Ambad returned laden with gold, jewels, vessels of precious metals, pearls, elephants and coined money. He was received graciously and ennobled with Mallikarjun's title of Grandfather of Kings. The Konkan is included among the thirty-six tribes who were subject to Kumarpal. But Gujarat power was short-lived, if the Shilahara ruler of Kolhapur is right in his boast that in 1151 he replaced the dethroned kings of Thane.

Though the Yadavas conquered North Konkan their authority was not immediately recognised throughout the whole country. Thus we have a stone inscription of a king named Jaitugi, dated in *Shaka* 1188 (A. D. 1266), now deposited in the Prince of Wales Museum, Bombay. This king assumes therein the titles *Maharajadhiraja*, *Rajapitamaha* and *Konkana-chakravarti*, which were previously borne by the Shilaharas. Some identify this king with an unknown successor of Someshvara, but according to Hemadri Someshvara was the last king of the Shilahara branch ruling in North Konkan. Jaitugi was probably a ruler of Mahim in the island of Bombay. He seems to have been previously a feudatory of the Shilaharas, but after their over-throw, he declared his independence and assumed imperial titles like those assumed by Someshvara. That there was a ruler of Mahim exercising his authority in North Konkan till the time of the Yadava king Ramachandra is known from the latter's Purushottampuri plates which mention the Yadava king's victory over a ruler of Mahim. He is described therein as a ruler of great power. He was probably this king Jaitugi.

The Shilaharas ruled over North Konkan for more than 400 years. They gave liberal patronage to art and literature. The temples at Ambarnath, Pelar and Walkeshvar, which are still extant, testify to the architectural and sculptural skill of the age. In the *Udayasundarikatha* Sodhdhala mentions several Jaina and other poets such as Chandanacharya, Vijayasimhacharya, Mahakirti, Indra and others, who like himself, flourished at the Shilahara court. Apararka's commentary on the *Yajnyavalkya-Smriti* is a monumental work of that age on *Dharmashastra*.

The third branch of the Shilahara family ruled over the Southern Maratha country comprising the districts of Satara, Kolhapur and

Belgaum. This branch rose to power late in the Rashtrakuta period and continued to hold the Southern Maratha country from *circa* A. D. 940 to A. D. 1215. The last known king of this family was Bhoja II, who was defeated and imprisoned by Singhana, the Yadava ruler.

The Yadavas of Devagiri came into prominence in the last quarter of the twelfth century A. D. It was Bhillama V of this family who made a bid for paramount power in the Deccan and by leading victorious campaigns against Hoyasalas, Paramaras and Chalukyas made himself master of the whole country north of the Krishna. He then founded the city of Devagiri and made it his capital. The power of the family greatly increased under Singhana, grand-son of Bhillama V. He obtained several victories. This success was maintained by his grand-son Krishna. Krishna was succeeded by his brother Mahadeva on 29th August A. D. 1261. The most notable event of his reign was the annexation of North Konkan after defeating Someshwara of the Shilahara dynasty. Mahadeva left the throne to his son Amana but he was deposed by Ramchandra, the son of Krishna. Ramchandra also won several victories.

The Yadav ruler was however defeated in A. D. 1294 by Ala-ud-din Khilji, the nephew of the reigning *Sultan* of Delhi. It appears that he continued to rule till A. D. 1310 as his Purushottampuri grants dated in that year show. His son Shankargana was defeated and killed by Malik Kafur, the Delhi general. The Yadav rule crumbled after a heroic resistance by Harpaldev and the entire Deccan along with Thane district passed under Muhammedan rule.

MUSALMANS (1300-1500)

Early in the fourteenth century the Turk rulers of Delhi forced their ways into Thane from two sides. From the north Alp Khan (1300-1318) who established the power of Ala-ud-din Khilji (1297-1317) in Gujarat, came south as far as Sanjan, then a place of wealth and trade, and after a sturdy and at first successful resistance, defeated the chief of Sanjan and his war-like subjects the Parsis. The conquest of Sanjan probably took place between 1312 and 1318. Up to 1309 the south of Gujarat, of which Navasari was the centre, had been under the Yadav king Ramchandra of Devgiri, and after his death it remained under his son Shankar till he refused to pay tribute and was killed in 1312. In 1318, when Harpaldev, Shankar's son-in-law, refused to acknowledge Musalman supremacy, a Gujarat force seems to have taken Navasari, as mention is soon after made (1320) of the appointment to Navasari of Malik-ut-Tujjar, the chief of the merchants. After the fall of Devgiri (1318) the Emperor Mubarak I

(1317-1321), in the short season of vigour with which he opened his reign, ordered his out-posts to be extended to the sea, and occupied Mahim near Bombay and Salsette. The strong Musalman element in the coast-towns probably made this an easy conquest as no reference to it has been traced in the chief Musalman histories.

That the Turk rulers of Delhi did conquer the coast and establish a garrison at Thane, is shown by the accounts of the French friars Jordanus and Oderious who were in Thane between 1321 and 1324. The friars state that the Saracens, or Muhammedans, held the whole country, having lately usurped the dominion. They had destroyed an infinite number of idol temples and like-wise many churches, of which they made mosques for Muhammad, taking their endowments and property. Under the Emperor of Delhi, Thane was governed by a military officer or *malik* and by a religious officer or *kazi*. Stirred by the *kazi* the military governor murdered four Christian friars, and for this cruelty was recorded many interesting details of Thane. The heat was horrible, so great that to stand bare-headed in the sun for a single mass (half an hour) was certain death. Gold, iron and electrum were found in the country, other metals were imported. The country was full of tress, the jack, the mango, the cocoa palm, the fan or brab palm and the forest palm, the banian tree with its twenty to thirty trunks, a stupendous carob tree perhaps the *Babab Adansonia digitata*, and a tree, apparently the teak, so hard that the sharpest arrow could not pierce it. There was plenty of victual, vice, much wheat, sesamum, butter, green ginger in abundance, and quantities of sugarcane. There were numerous black lions, leopards, lynes, rhinoceroses, and crocodiles, monkeys and baboons, bats (the fruit-eating bat or flying-fox) as big as kites, and rats (the bandicoot) as big as dogs. There were no horses, camels or elephants, and only a few small worthless asses. All the carrying, riding and ploughing was done by oxen, fine animals with horns, a good half pace in length, and a hump on the back like a camel. The oxen were honoured as fathers and worshipped by some, perhaps by most. The people were pagans, Hindus and Parsis, who worshipped fire, serpents, and trees, especially the basil plant. There were also Saracens or Musalmans, most jealous of their faith; scattered Nestorian Christians, kindly but ignorant and schismatic; and Dumbriis, a class of drudges and load-carriers who had no object worship and ate carrion and carcasses. The men and women were black, clothed in nothing but a strip of cotton tied round the loins and the end flung over the naked back. Their food was rice, gruel, butter and oil, and their drink milk and very intoxicating palm wine. The fighting was child's play. When they went to the wars they went naked with a round target, a frail and paltry affair, and holding a kind of spit in their hands. They were clean in

their feeding, true in speech, and eminent in justice, maintaining carefully the privileges of every class as they had come down from old times. The pagans were ready to hear a preacher and open to conversion; the Saracens were full of hate for Christian teachers, killing for and imprisoning and ill-treating a fifth. Among the pagans, when a woman was married, she was set on a horse and the husband got on the crupper and held a knife pointed at her throat. They had nothing on, except a high cap on their head like a mitre, wrought with white flowers, and all the maidens of the place went singing in a row in front of them till they reached the house, and there the bride and bridegroom were left alone, and when they got up in the morning they went naked as before. The noble and rich dead were burnt, and their wives burnt with them with as much joy as if they were going to be wedded. Most of the dead were carried with great pomp to the fields and cast forth to the beasts and birds, the great heat of the sun consuming them in a few days. There was trade with Broach, the Malabar coast, the Persian gulf and Ethiopia. The coast was infested with pirates.

Under the strong rule of Muhammad Tughlak (1325-1350) the Musalmans probably maintained their supremacy in north Konkan, but their interest in this part of their dominions was small. The route taken by the traveller Ibn Batuta (1343) shows that, at this time, the trade between Daulatabad and the coast did not pass to the Thane ports, but went round by Nandurbar, and Songad to Cambay. At this time two important Hindu chiefs held territory on the direct route between Daulatabad and the coast, Mahadev chief of Baglan, and the chief of Jawhar, who, in 1341, was recognised by the Delhi court as the lord of twenty-two forts and of a country yielding a yearly revenue of Rs. 9,00,000. Some parts of the Thane coast may in name have remained subordinate to Gujarat. But the connection with the Deccan seems to have been very small. In 1350, when the new or Moghal nobles were summoned into Daulatabad, none came from the Konkan. Shortly after, when the Bahamanis established themselves as independent rulers and moved the capital of the Deccan from Daulatabad south to Kulburga, their connection with north Konkan grew still fainter. Though they held Navasari to the north and Chaul to the south, they seem to have had little concern with the lands now under Thane. In 1330, when orphan schools were founded in their leading towns, no mention is made of any of the Thane ports. Musalman supremacy can have been little more than a name. It appears from a stone inscription dated A. D. 1464 that the Hindu chief of Bhiwandi had power to make land grants.

In the fifteenth century the interest of the Musalmans in north Konkan revived. The establishment of a separate dynasty of Gujarat

kings, at the close of the fourteenth century, added much to the vigour and strength of the Musalmans on the northern frontier. Mujaffar (1390-1412), the founder of the Gujarat dynasty, and his grand-son and successor Ahmad I (1413-1441), brought most of the Gujarat chiefs to subjection and ranked high among the rulers of Rajputana and of Western India. In 1429, apparently as a regular out-post and not as a new possession, they had a garrison under a captain, Kutb Khan or Rai Kutb at Mahim near Bombay, and another garrison over-ruling Thane. Apparently at both places, certainly at Mahim, there was friendly, probably a tributary, Hindu chief or *raja*. The whole coast from Navasari to Bombay, though apparently under Hindu chiefs who were independent enough to make grants of land, was sufficiently under Musalman control to enable their army to pass unopposed from Gujarat to Mahim. About the same time Sultan Ahmad Bahamani (1422-1435), king of the Deccan, made rigorous efforts to bring the Konkan under his control. In 1429 the Bahamani minister Malik-ut-Tujjar led a strong force into the Konkan, and secured a rich booty, including several elephants and camel-loads of gold and silver. Malik-ut-Tujjar seems to have spread his master's power to the shore of the mainland, and in 1429, on the death of the Gujarat commandant Kutb Khan, he seized Mahim and Salsette. Hearing of this insult, the strong and war-like Ahmad Shah of Gujarat gathered a fleet of seventeen sail from Veraval, Diu, Gogha and Cambay, and sent it to Mahim alongwith a land army under his youngest son Zafar Khan and his general Malik Iftikar Khan. The joint force attacked Thane which belonged to the Bahamani ruler by land and sea, and compelled the Deccan general to retire to Mahim. Here he was joined by a force under Ala-ud-din, the son of the Deccan monarch, and strengthened his position by throwing up a wattled stockade along the shore of the creek. After waiting some days the Gujarat troops took heart, assaulted the stockade, and after a severe struggle, drove the Deccanis to the mainland. Here again the Gujarat ships co-operated with the land forces. Reinforced from the Deccan, they came back with a force of 60,000 troops and attacked Thane, but were once again defeated and compelled to retire. Among the plunder the Gujarat troops secured some beautiful gold and silver embroidery. A year or later (1432) Ahmad of Gujarat arranged a marriage between his son and the daughter of the Chief of Mahim. An attempt of the Deccan king to take the place of Gujarat as overlord of Baglan proved as complete a failure as his attack on Thane and Bombay.

After this, several expeditions, Dilavar Khan's in 1436, Malik-ut-Tujjar's in 1453, and Mahmud Gawan's in 1469, were sent from the Deccan to conquer the Konkan. They seem to have been almost

entirely confined to central and southern Konkan, the present districts of Kulaba and Ratnagiri. Much of the country was over-run and many chiefs were forced to pay tribute, but almost the only permanent posts were at Chaul and Dabhol. The inland parts continued to be held by Hindu rulers, of whom the *rais* of Mahuli in Thane, Rairi or Raygad in Kulaba, and Vishalgad in Ratnagiri were perhaps the chiefs. About 1465 Mahmud Begada increased Gujarat's power in north Thane, when he sent his army to capture the forts of Bahrot, Dura and Parnera and the sea port town of Daman all of which were still in the hands of Hindu *rajas*. He forced the chiefs to give up their forts. The chiefs threw themselves on Mahmud's mercy, and on paying tribute their land was restored.

About 1480 the Bahamanis divided their territory into eight provinces. By establishing Junnar as the head of one of the provinces the Deccan was brought into closer relations with the north Konkan.

During the years 1491 to 1494 the *Sultan's* attention was drawn by the piracies on the Gujarat coast of Bahadur Gilani, a nobleman of the Bahamani kingdom in revolt against his master. The greatness of this monarchy came to an end with the unjust and cruel murder of the celebrated minister Mahmud Gawan, and Bahadur, who had been a protege of that minister, broke out in rebellion at the port of Dabhol and soon became master of the whole of the Konkan. He extended his depredations on the coast further to the north so that ships from the port towns of Gujarat were at his mercy and some of the *Sultan's* own vessels were captured. One of Bahadur's officers, an Abyssinian named Yaqut is said by Ferishta to have attacked Mahim, near Bombay, with a fleet of twelve ships, and to have sacked and burnt the place. These insults to his authority were not likely to be tolerated by a ruler so powerful as Mahmud and he decided to take strong action.

It appears that one expedition sent under Safdar Khan failed disastrously, and the *Sultan* sent another by land against Dabhol under Malik Sarang, Kiwam-ul-Mulk, while he also despatched a well-equipped fleet of three hundred vessels by sea to co-operate with the land army. When Kiwam-ul-Mulk reached the borders of Gujarat at Agashi and Vasai he halted and sent word to the king that he could not attack Gilani without trespassing into the territory of the Deccan ruler. Meanwhile, the ships sent under Safdar-ul-Mulk had met with a severe gale off the coast of Mahim, and, being stranded, were taken by the enemy, the admiral himself being made a prisoner. Sultan Mahmud now sent an envoy to the court of the Deccan sovereign requesting him to suppress the marauder. This formal complaint roused the feeble Bahamani government to action, and

Qasim Barid, its minister, led a campaign against the rebellious nobleman with the result that, after some protracted operations, Gilani was defeated and slain. Safdar-ul-Mulk was released from prison and the ships which had been captured on the Gujarat coast were restored to their owners. The admiral sailed from Mahim for the north carrying valuable gifts for the Gujarat *Sultan* from the feeble Bahamani ruler.

During this time (1485-1493) Ahmad Nizam, the son of the Bahamani prime minister, was placed by his father in charge of the province of Daulatabad. He made Junnar his headquarters and took many Pune and Thane forts, among them being Manranjan or Rajmachi and Mahuli. In 1490 he increased his power in the Konkan by taking Danda-Rajpuri, and, about the same time, on hearing of his father's assassination at the Bidar court, he declared himself independent of the Bahamani kings. Meanwhile Mahmud Begada was strengthening his hold on the Konkan, and about 1495, divided his dominions into five parts, of one of which Thane was the head. Some years later (1508) Mahmud Begada still further increased his power. He effected his designs against Vasai and Bombay, established a garrison at Nagothana, and sent an army to Chaul. At this time, when Gujarat power was at its highest according to the *Mirat-i-Ahmadi*, Daman, Vasai and Bombay were included within Gujarat limits. And among the ports which yielded revenue to the Gujarat kings were Agashi, Danda near Kelva-Mahim, Sorab perhaps Sopara, Vasai, Bhiwandi, Kalyan, Bombay and Panvel. The claim of the Gujarat historian to so large a share of the north Konkan coast is supported by the Italian traveller Verthma who, in 1502, placed Chaul in Gujarat. So, also, the early Portuguese accounts though they make the Bet or Kalyan river the border line between Gujarat and the Deccan, notice that in 1530 there was a Gujarat Governor of Nagothana, and that in 1540 there were Gujarat commandants of the hill-forts of Karnala in Panvel and of Sankshi in Pen. Durate Barbosa while describing the ports under the jurisdiction of Gujarat states that Dahanu near Daman and still further south Vasai were great ports. Barbosa also mentions the famous town of Thane at the head of the creek which surrounds the island of Salsette, and with it he joins the name of another place which can only be associated with Mahim of Thane. We are told that Mahim had many gardens with several mosques and temples. It had a good port and was notorious for being the fair of pirates who were a terror to small craft on the western coast.

Of the trade of the Thane ports during the two hundred years between the Muhammedan conquest and the arrival of the Portuguese information is scanty. For the first forty years of this period Thane

was the port of the Musalman rulers of Daulatabad. Then, when the Bahamanis (1347) moved their capital to Kulbarga, trade passed south to Chaul and to Dabhol in Ratnagiri. Towards the end of the fifteenth century, though some traffic continued from Mahim and Thane through the Thal pass to Burhanpur, the trade of the north Konkan ports was further reduced by their conquest by the Ahmadabad kings. The establishment of Ahmadnagar as a separate kingdom, a few years before the close of the fifteenth century (1490), again raised Chaul to the rank of a first class port. During this period Persia was prosperous, and a great trade centred in the ports of the Persian Gulf. The constant demand for horses kept up a close connection between the Thane and east Arabian ports, and there was a considerable trade with Zanzibar coast. The great wealth and power of Venice, and the capture of Constantinople by the Turks (1453), turned the commerce between Europe and Asia to the Red Sea route, but in India the bulk of the Red Sea trade settled in the Malabar ports. There is little trace of direct trade between Thane ports and Ceylon, the Eastern Archipelago or China. This trade seems also to have centred in Malabar. The chief Thane ports during these two hundred years were Thane, a considerable town and a celebrated place of trade, Chaul a centre of trade, Sopara a place of consequence, and Mahim a port and centre of trade. The chief ports which had dealings with the Thane coast were Quillon and Kalikat in Malabar, Cambay in Gujarat, Ormuz in the Persian Gulf, Dhafar in East Arabia, Aden, Jidda and Ethiopia in the Red Sea, and the African ports. Compared with the previous period, the chief changes in the export of rice, wheat and betelnut and leaves to the Persian and Arab coasts; in the export of fine Deccan-made muslins; in the import of the rich silks of Venice, the brocades and cloth of Persia, and the satins of China; and in the import of woollen cloth, camlets, mirrors, arms, gold and silver ornaments, and other articles from Venice. Of articles of food, rice, green ginger, sugarcane, butter and sesamum oil were produced in Thane and sent probably to the Arab and African ports. Wheat was exported probably to Ormuz and Arabia; palm wine and palm sugar were produced in abundance, and there were jacks, mangoes, sweet and sour limes and cocoanuts; betel nuts and leaves were grown on the Konkan and Malabar coasts and sent in large quantities to the Arab ports and to Ormuz. Of spices, pepper ginger, and cardamoms came from the Malabar coast, cinamon from Ceylon, cubebes, nutmegs, mace and cardamoms from Java, and cloves from Sumatra. These spices were sent to the Deccan, and probably to Africa, Arabia and Persia. Of articles of dress, cotton cloth made in Thane, and gold and silver embroidered muslins and fine gauze from Burhanpur and other Deccan cities were sent to Persia, Arabia, Africa

and China, where one cotton coat was worth three silk coats ; velvet was made in Thane ; and silks were brought from the Deccan, China, Persia and Europe, inter-changed, and exported to Africa and Arabia ; woollen cloth came from Europe by the Red Sea. Of precious stones, diamonds 'the best under heaven' were sent from India, and pearls and rubies from Abyssinia, Persia and Ceylon. Aethiopia was rich in precious stones, and coral came from the Red Sea. There was a large demand for pearls and other precious stones in Africa. Of metals, silver came from China and probably through the Red Sea from Germany and went to Sofala ; tin was brought from Sumatra and probably through the Red Sea from England ; gold, iron and electrum were not imported. Of timber, bamboos were exported and Brazil-wood was brought from the Malabar coast. Of drugs and perfumes, incense and myrrh came from Arabia, alum from Asia, minor ambergris from Africa, aloes wood, camphor and benzoin from Sumatra and Java, musk myrrh and rhubarb from China, and tabashir or bamboo-sugar was still made in Thane and exported. Of tools and house gear, 'noble earthenware full of good qualities' came from China and probably went to the Deccan and to the Persian Gulf, and mirrors, arms, gold and silver ornaments, glass, and other articles came from Venice. Of animals, many horses were brought from Ormuz and from Aden. Of human beings, soldiers of fortune came from Khurasan and Abyssinia, and negro slaves from Africa.

Barbosa's (1500-1514) details of the course of trade at Chaul are of special value, as what he says is probably true of the trade of the Thane ports from the earliest times. The system must have been much the same in Thane during the time of the Khalifs of Baghdad (700-1000) ; in Kalyan during the times of the Sassanians (300-600) ; in Chaul during the times of the Egyptian Greeks (B. C. 1000). The great centre of foreign trade was not necessarily a large city. There were perhaps few inhabitants except during December, January, February and March when vessels from all parts of Asia thronged the port and when, from the Deccan and from Upper India, came great caravans of oxen with packs like donkeys, and, on the tops of the packs, long white sacks laid cross-wise, one man driving thirty or forty beasts before him. The caravans stopped about a league from the city, and there traders from all the cities and towns in the country set up shops of goods and of cloth. During these four months the place was a fair, and then the merchants went back to their homes till the next season.

Among the merchants who carried on trade in the Thane ports were Hindus, Musalmans, Egyptians, and a small but increasing number of Europeans. Hindus continued to travel and trade to foreign ports, being met in Ormuz, Aden, Zanzibar and Malacca.

There seems to have been little change in the style of ships that frequented the Thane coast. Of the local or Indian ships some were very great, but they were put together with a needle and thread without iron and with no decks. They took in so much water that men had always to stand in the pool and bail. The Arab ships in the Red Sea had timbers sewn with cords, and sails. The Persian Gulf boats were very frail and uncouth, stitched with twine and with no iron. The Chinese ships, though it is doubtful if any came further than the Malabar coast, were much the same as those described by Marco Polo. The European travellers speak slightly of the eastern sailors, 'Whether such as our marines would deem splendid is to them awfully perilous. One European at sea is worth a hundred of them.' The Indian seas continued cursed with pirates. The Indian ships were armed against them with archers and Abyssinian soldiers. In the fifteenth century Abd-ur-Razzak, 1440, notices pirates in the Persian Gulf and at Kalikat, and, about thirty years later, Nikitin complains that the sea was infested with pirates neither Christians nor Musalmans, who prayed to stone idols and knew not Christ. During this century the Musalman kings of Ahmadabad made several expeditions against the pirates of Dwarka in Kathiawar, of Bulsar in south Surat, and foreign corsairs from the Malabar coast.

PORTUGUESE (1500-1670)

In 1498, when the whole coast-line from Goa to Vasai had lately passed to Bijapur and Gujarat, the Portuguese rounded the Cape Hope and appeared on the Kalikat coast. Their object was to treat all Indian ships as friends and all Indian rulers as allies. Their only rivals were the Moors of Mecca, and the Arab and Egyptian merchants who had then the monopoly of the trade between Europe and Asia. The first Gujarat ships that were taken by the Portuguese were restored unharmed and with a friendly message. After Goa was ceded (1511), in spite of constant quarrels, the Portuguese are honourably mentioned by Musalman historians as keeping their agreement with the Bijapur kings. With the Nizam Shah of Ahmadnagar dynasty the Portuguese continued faithful allies, never attacking them except on three occasions and on each occasion in self-defence. Mahmud Begada, the Gujarat king, was too staunch a Musalman to be on friendly terms with a Christian power, and he was too successful a sea captain to admit the Portuguese claim to rule the sea. He entered into an alliance with the Mameluke Soldan of Egypt and the Zamorian of Kalikat to unite in driving the Portuguese from Indian seas. Timber was sent from Vasai to Mecca to help the Egyptians to build a fleet, and, in 1507, an Egyptian fleet of twelve sail and 1,500 men under Amir Husain arrived in the Cambay gulf.

On their arrival Mahmud sent his fleet along with the Egyptian vessels down the coast, and himself led an army by land to help the fleets, should the Portuguese be found in any of the Gujarat ports. The result was the defeat of the Portuguese at Chaul. Mahmud Begada was pleased on hearing of this victory and set out from his capital with the intent of making a Holy War. He proceeded as far as Daman and Vasai. At Vasai he received the victorious generals who cast anchor there on their return journey and loaded them with favours and gifts. Amir Husain was even offered the command of Mahim if he would stay in India and entered the *Sultan's* service. The loss was soon after (2nd February 1509) redeemed by the Portuguese by the destruction off Diu of the joint Gujarat, Kalikat and Egyptian fleets. In 1507 the Portuguese seem to have tried to raise the Hindu chiefs on the Thane coast against Mahmud Begada, as Mahmud is described as settling disturbances at Vasai and effecting his designs against Vasai and Bombay. In January 1509, on their way to Diu, the Portuguese took a ship in Bombay harbour and got supplies from the fort of Mahim, from which the garrison fled. On the return of the victorious Portuguese fleet the governor of Chaul agreed to pay a yearly tribute. A few years later (1514) the southern boundary of Gujarat had shrunk from Chaul to Bombay.

At this time the Thane ports seem to have been places of little trade. The commerce between the Deccan and the sea either entered in Chaul and Dabhol, or passed by land to Surat and Rander, which were great places of trade in all classes of merchandise. Vasai was a good sea-port where much merchandise changed hands, but all apparently came from the Malabar coast. Bombay, Mahim and Thane were mixed into one, Tanamayambu, a sea-port at the end of Cambay or Gujarat. It had a fortress and a pleasant Moorish town with many rich gardens, great Moorish mosques and gentle temples. It had little trade and was pestered with pirates, who went out to sea, and if they met with any ships less strong than themselves, captured them sometimes killing the crews.

In 1516, Dom Joao de Monoy entered the Bandra creek and defeated the commandant of Mahim fort, and, in the same year, a Portuguese factory was established at Chaul. In 1521 an order came from Portugal to build forts at Chaul and at Diu. A fleet started for Diu, but their request to be allowed to build a fort was refused, and the place was so strongly fortified that the fleet sailed to Ormuz without attacking it. The Portuguese were more successful at Chaul, where, on the promise that he would be allowed to import horse, Burhan I, king of Ahmadnagar, gave them leave to build a fort. Malik Eliaz sent the Gujarat fleet from Diu to blockade the Chaul river, and stop the building of the fort. In this he was helped by the

Musalman governor of Chaul. But though the Portuguese fleet suffered severely, the building was pushed on, and, in 1522, Malik Eliaz was forced to withdraw. The fort was finished in 1524 and, after that, the Portuguese fleet was able to sail freely in the Bombay harbour. In 1526 a Portuguese factory was established at Vasai. In February 1528 the Gujarat fleet of eighty barks, under a brave Moor named Alishah (Alexiath), appeared at the mouth of the Chaul river and did much damage to the Ahmadnagar territory and to Portuguese trade. Against the Gujarat fleet, Sampayo, the Portuguese viceroy, sailed with forty vessels, carrying 1,000 Portuguese soldiers and a large force of armed natives. The viceroy took command of the sailing ships and placed Heitor de Sylveira in charge of the row-boats. On reaching Chaul, one Juao de Avelor, with eighty Portuguese, was sent to help the Ahmadnagar king. A thousand natives were given to him, and with their help he scaled a fort belonging to the king of Cambay, which till then had been thought impregnable. He slew the garrison and delivered the fort to the Nizam.

On leaving Chaul for Diu, "on the day after Shrove Tuesday", Sampayo came unexpectedly on the Cambay fleet in Bombay harbour. After a furious cannonade the Portuguese boarded the enemy and Alishah fled, hoping to escape by the Mahim creek. But the Portuguese had stationed boats at Bandra, and all Alishah's vessels but seven were taken. Of the seventy-three prizes thirty-three were fit for work and were kept; the rest were burnt. Besides the vessels, many were made prisoners, and much artillery and abundance of ammunition were taken. After the victory Sampayo went back to Goa, leaving Heitor de Sylveira with twenty-two row-boats to harass the Gujarat coast. Sylveira remained some time on the pleasantly wooded island of Bombay or Mahim. It had much game and plenty of meat and rice, and proved so agreeable a resting place that his men gave it the name of Boa Vida or the Island of Good Life.

After resting his men in Bombay, Sylveira went up the river Nagothana, landed, and burnt six Gujarat towns. On his way back to his boats he was attacked by the commandant of Nagothana, but beat him off with loss. Sylveira next went to Vasai which he found well fortified and defended with cannon. He entered the river at night and stormed the fortifications. Next day he was met by Alishah at the head of 3,500 men. But he drove them off with great slaughter, and plundered and burnt the city of Vasai. Terrified with these exploits, the lord of the great city of Thane agreed to become tributary to the Portuguese, and Sylveira returned to Chaul. In 1530 Antonio de Sylveira, on his way back from plundering Surat and Rander, destroyed the towns of Daman and Agashi, at the latter place burning 300 of the enemies' ships. In the same year the

Portuguese made a successful raid into Ahmadnagar-Konkan, as Burhan Nizam had been forced by his superior Bahadur Shah of Gujarat to join with him in a campaign against the Portuguese.

In 1531 a great Portuguese fleet, collected by Nuno da Cunha for the capture of Diu, was reviewed in Bombay harbour and a parade was held on the Bombay esplanade then as now beautiful but yet unknown to fame and prosperity. From Bombay the fleet of 400 sail with 3,600 Portuguese soldiers and 1,450 Portuguese seamen, 2,000 Kanara and Malabar soldiers, 8,000 slaves and about 5,000 native seamen, sailed to Daman. They found it deserted, and passing north, took the pirate stronghold of Little Bet in the south of Kathiavad, and advanced to Diu, but failed to make any impression on its fortification. Nuno returned to Goa, leaving Antonio de Saldanha with sixty sail to plunder the Cambay port. On his way south Antonio destroyed Balsad, Tarapur, Kelva-Mahim and Agashi. In 1532 Nuno da Cunha ordered Diogo de Sylveira to plunder the Gujarat coast, and himself advanced, with 150 vessels manned by 3,000 Portuguese soldiers and 200 Kanarese, against Vasai whose fortifications were being strengthened by Malik Tughan, the governor of Diu, under orders from Bahadur Shah. Perhaps the reason for this attack was the timber of the best quality for building of the ships yielded by the country round Vasai. The citadel of Vasai was built and garrisoned by a strong force of 12,000 men. The Portuguese dashed against the fort. Confronted by this formidable array, Malik Tughan made overtures for peace, but the terms offered by Da Cunha were so hard that he was compelled to resist. The Portuguese van scaled the ramparts of the citadel and in the struggle that followed Tughan's troops were defeated and put to flight leaving behind them large stores of ammunition. At a council of war held by Nuno it was decided to demolish the ramparts and to raze the Muslim citadel to the ground. After this, the Governor retired to Goa with 400 pieces of artillery that had been captured, leaving behind him Manuel de Albuquerque. Albuquerque burnt the coast towns between Vasai and Tarapur and an attempt was made to take the fort of Daman. It was now that Thane, Bandra, Mahim and Bombay were brought under the rule of the Portuguese. Nuno da Cunha again urged the king of Gujarat to let the Portuguese build a fort at Diu. But again the negotiations failed. Soon after this a quarrel between Humayun, king of Delhi, and Bahadur of Gujarat gave the friendship of the Portuguese a special importance. As Bahadur continued to refuse to allow the Portuguese to build a fort at Diu, Nuno entered into negotiations with Humayun and again pillaged the Gujarat coast and took Daman. After the loss of Daman, to win them from their alliance with Humayun, Bahadur (1533) made a treaty with the

Portuguese, ceding Vasai and its dependencies, and agreeing that Gujarat ships bound from Cambay to the Red Sea should touch at Vasai and pay dues; that no Cambay ships should sail without a Portuguese pass; that no war-ships should be built in Gujarat; and that no treaty should be made with the Turks. In 1535, defeated by Humayun and apparently ruined, Bahadur, on promise of their active assistance, agreed to let the Portuguese build a fort at Diu. Bahadur had written for help to the *Sultan* of Turkey. But, as time pressed, he did not wait for his answer, but made a treaty with the Portuguese. Nuno da Cunha agreed, under the terms of the treaty, to assist Bahadur against his enemies by land and by sea. In return he received permission to erect a fortress at Diu, and a site was granted for this purpose which included the existing small fort in the harbour. The king of Portugal was, however, to have no claim to any of the customs receipts at Diu and the revenues of the port were to remain with the Gujarat ruler. The *Sultan* also confirmed the previous agreement about the cession of Vasai. In a noteworthy clause of the treaty, both parties agreed to prevent religious proselytising. In return for this concession the Portuguese did their best to help Bahadur to regain his kingdom. They repelled a Moghal attack on Vasai, and a body of 500 Portuguese were most useful in helping Bahadur to free Gujarat from the Moghals. In 1535 the Portuguese built a fort at Vasai, and the Diu fort was pressed on and finished.

When his affairs were again prosperous Bahadur repented of having allowed the Portuguese to build a fort at Diu, and invited the *Sultan* of Turkey and the Chief of Aden to attack the Portuguese. In 1536 Bahadur came to Diu, and, to tempt Nuno da Cunha the Portuguese governor to enter the city, paid his ship a visit. Treachery was planned on both sides, and, when Bahadur was landing, a scuffle arose and he and the Portuguese governor of Diu were slain. Two years later, tempted by the great value of a jewelled belt which he had received from Bahadur, the *Sultan* of Turkey sent a great expedition to take Diu. His admiral Sulaiman besieged the fort for two months (September-November 1538). But the heroic defence of the Portuguese garrison, and the well-founded suspicion of the Gujarat Musalmans, that if the Turks took Diu they would keep it, forced him to retire defeated. After the withdrawal of the Turks the Portuguese Governor Noronha arrived at Diu halting at Chaul and Vasai and other ports on the way. A treaty of peace was concluded between the Portuguese and the king of Gujarat. In 1540 Mahmud Shah III of Gujarat besieged Vasai, but failed to take it, and, in the same year, Burhan Nizam of Ahmadnagar took from their Gujarat commandants the forts of Karnala in Panvel taluka and of Sangaza or Sankshi in Pen taluka of Kulaba district. The Gujarat commandants applied for help to the

Portuguese who retook the forts. They held them for a short time, but, finding them costly, handed them to Ahmadnagar.

In 1546 the Portuguese gained great honour by the second famous defence of Diu. The expedition was in charge of the Portuguese Governor De Castro who set sail from Goa on 17th October 1546. He reached Vasai six days afterwards. While anchored at Vasai he ordered the capture of all ships at sea belonging to the enemy and put their crews to sword. De Castro arrived at Diu on 7th November 1546. In the next year an invasion of Diu by Gujarat troops was rumoured. De Castro again set out for Diu in November 1547 and reached Diu after a short stay at Vasai. At Diu he found that the danger of another invasion had disappeared and he returned to Goa halting at Vasai on his way. So completely did they defeat the whole strength of Gujarat that in 1548 Mahmud Shah made overtures for peace and concluded a treaty much in favour of the Portuguese. In 1556 the great hill-fort of Asheri and the important station of Manor on the Vaitarna river were taken by the Portuguese. In 1558 Daman was ceded to the Portuguese by the Gujarat King. It was occupied by the Portuguese viceroy who collected all the available forces from Chaul and Vasai before he proceeded to Daman. In 1560 Changiz Khan, one of the leading Gujarat nobles, in return for help in taking Surat, ceded to the Portuguese the belt of coast from the Vaitarna to Daman. Sidi Bofeta, the commandant of Daman, refused to surrender the fort. But a Portuguese force took the forts of Daman and Parnera as well as the island of Balsad. Daman was strongly garrisoned and was highly valued as a guard to the district of Vasai. In the same year (1560) a body of 3,000 Moghal horse attacked Daman, but were driven off with the loss of their baggage.

Bassein, or more properly Vasai as it is commonly known to the people, is picturesquely situated on the coast of North Konkan about thirty miles north of Bombay on the creek of the same name, and is now the headquarters of a sub-division of Thane district. For over two hundred and thirty years it was under the Muslim rulers of Gujarat from the time of Ala-ud-din Khilji's conquest of these parts early in the fourteenth century up to the year 1534 when it passed into the hands of the Portuguese by virtue of the treaty made by Sultan Bahadur with this power in the distressful hour of the invasion of his kingdom by the Emperor Humayun. The history of Vasai under Portuguese rule during the rest of the 16th century and in the century that followed, till its capture by the Marathas in 1739, forms, therefore, part of the general history of Gujarat. It is proposed in the following few pages to offer a general account of this once flourishing Portuguese settlement with special reference to its

monuments, the ruins of which are still of considerable interest to all students of history.

Though it has lost its insular character in recent years by its connection with the mainland, Vasai was for many generations an island, being bounded on the north by the Vaitarna or Dantura river, on the south by the creek of Vasai, on the east by the Kokhirva or Sopara creek, and on the west by the Arabian Sea. The island so formed was about eleven miles long and five miles broad, and had an area of nearly thirty-five square miles. The famous Portuguese fort stands on its south-west extremity on a low flat plot of ground once abounding in palms and mangrove bushes. A good metalled road, $4\frac{1}{2}$ miles long, now leads from Vasai Road station on the main Bombay and Baroda Railway line to the old Portuguese city of Vasai and to the walls of the fort which enclose it.

As stated above, Vasai came into the hands of the Portuguese at the end of 1534 by virtue of a treaty made by Sultan Bahadur with Nuno da Cunha during the crisis of the Moghal invasion. Within a year of this transfer, in 1536, the new settlement was attacked by the Moghal forces then in Gujarat, and Nuno was obliged to appoint his brother-in-law Garcia de Sa to conduct its defence. The latter, however, finding the place poorly equipped for defence, was for abandoning it, but the decision was opposed by one of his officers named Antonio Galvao who later on distinguished himself as the governor of the Moluccas. The Moghal general, finding the garrison ready to resist, withdrew without firing a shot. Shortly after, Nuno da Cunha himself arrived at Vasai where he began the construction of a citadel, and he honoured Galvao by asking him to lay the corner-stone of the Castle. The date of construction of the Portuguese citadel, the ruins of which may still be seen within the fort-walls of Vasai, is preserved in an inscription.

Nuno da Cunha, who is generally described as 'the founder of Vasai', left India in 1538 and died at sea on his way home in February, 1539. His name stands high in the annals of the growth of the Portuguese power in the East, and he belongs, along with Vasco de Gama, Albuquerque and Joao de Castro, to that brilliant galaxy of intrepid soldiers of old Lusitania who for about half a century dazzled the world with their splendid achievements.

Nuno had appointed Garcia de Sa as the first Captain of Vasai, and the latter continued to improve the condition of the new possession until 1548. On the death of Dom Joao de Castro in this year, the royal 'letters of succession' being opened at Goa with the usual formalities, De Sa was found to be named for the succession and he was proclaimed Governor of India, though he died shortly after in 1549. Garcia de Sa is thus the first in the long list of Portuguese

rulers of Vasai in the two hundred years that followed. His place as Captain of Vasai was given to George Cabral who was also called to Goa to act as Governor on the death of De Sa, till the year 1551 when the Viceroy Afonso de Noronha arrived to hold the reins of the Portuguese Empire in the East.

Soon after the building of the 'citadel', the Portuguese began to plan out a fine city to be enclosed within an extensive circuit of walls. These city walls, now known as the fort of Vasai, were completed in the course of the sixteenth century, though they were afterwards improved upon. Between 1535 and 1600 a flourishing settlement grew up at this spot, semi-European in character, with fine mansions and public buildings, including an unusually large number of churches and monasteries, all of which appear to have been constructed before the end of the sixteenth century. The fort of Vasai is built in the form of an irregular decagon, the circuit of the walls covering a mile and a half, and at each of the ten corners is a four-sided bastion. There were originally three entrances to the fort, viz., two main double gateways and the postern. The area of the city enclosed within these stone walls measures about two-thirds of a mile from east to west and one-third of a mile from north to south. The height of the walls of the fort is from thirty to thirty-five feet, and on three sides, viz., north, south and east, the walls are of the average thickness of only five feet, for the works on these sides derive their chief strength from nature, the swamps rendering it almost impossible for a besieging army to approach in any of these directions. On the western or land side, however, the wall consists of a double front of considerable thickness, this being the only quarter from which the Portuguese city was exposed to attack from its enemies. The city walls just described as also the ramparts are still in a fair state of preservation, but the area within is now desolate except for a few persons and the ruins of the monuments which once constituted the glory of the city. The houses of the present town of Vasai lie about half a mile inland and to the north of the walls of the old fort.

The Portuguese remained in possession of Vasai for roughly two hundred years, from 1535 to 1739, during which period the city rose to a position of grandeur and opulence that earned for it among the Portuguese the appellation of the Chief City of the North in relation to their capital at Goa in the south. It was during these two centuries the resort of the proudest nobles and the most prosperous merchants of Portuguese India, so much so that a great man came proverbially to be described as a 'Fidalgo, or Cavalleiro, de Bacaim'. With fine streets, large squares, and stately dwellings graced with covered balconies and large windows, as also many magnificent churches with their convents and colleges, Vasai was next to Goa the largest and

richest of the Portuguese possessions in the East, and the ruins of these monuments serve as a silent memorial of its vanished greatness.

Some idea of Vasai in its palmy days may be obtained from the references to the city made in the works of several of the well-known European travellers who visited it during the seventeenth century. The earliest of these was Francois Pyrard of Laval, an adventurous Frenchman, who, after a long stay on the Maldiv Islands, where the ship in which he came out was wrecked, fell into the hands of the Portuguese and was taken to Goa as a prisoner in 1608. He subsequently proceeded to the Gujarat coast in 1609 and among other places visited Vasai, and he makes special reference to the excellent timber which is supplied to all the Portuguese settlements for building ships and houses. 'This place, Bassein,' he says, 'is to the Indies what Biscay in Spain is here for all the vessels built for the King of Spain in the Indies are constructed there, because no such country yields so much timber.' Pyrard also refers to the fine quality of building-stone that was available at Vasai. 'It also supplies a very fine and hard free-stone, like granite; and I have never seen columns and pillars of single blocks so large as what are produced there. All the magnificent churches and palaces at Goa and the other towns are built of this stone.'

A much fuller reference to Vasai is to be found in John Fryer's *New Account of East India and Persia*. He was surgeon to the English factory at Surat, and during a visit to Bombay and its neighbourhood in 1675 he was sent for by a wealthy noble of Vasai to treat his only daughter, illustriously born, handsome, and 'on the point of marriage with the Admiral of the North, though not full twelve years old'. Dr. Fryer informs us that the Captains of Vasai, like those in charge of other Portuguese settlements in India, held office for three years and that these posts were 'entailed on certain families' and circulated among them by turns. The Captain, at the time of our Surgeon's visit, used to summon the Fidalgos every morning to the State-house for consultation, at which they all kept standing, a chair not being permitted for the Captain himself though he was gouty. Towards evening they met there 'to game'.

We also gather from Dr. Fryer's account that the wealthy Portuguese nobles of Vasai lived in stately dwellings two stories high, graced with covered balconies, and having large windows with panes of oyster-shell, 'or else latished'. The nobles showed their importance by their *sombrevos*, or umbrellas of state, and by the number of Kafir servants who attended them, 'whereby it is dangerous to walk late for fear of falling into the hands of those pilfering abusive rascals'. Another very interesting fact that we gather from Fryer is

that no one but Christians was allowed to lodge within the city-walls and that the Banyas had to repair to the suburbs.

A long and deep-seated hostility had subsisted for nearly two centuries between the Arabs of Muskat and the Portuguese, for the latter had spared no cruelties and respected neither age nor sex at their first capture of that town under Albuquerque in 1507. In the declining days of Portuguese power in the East, the Arabs took their revenge. In 1674, the year before Fryer's visit six hundred Muskat pirates landed at Vasai, and, unopposed by the garrison, plundered all the churches outside the walls, refraining from no cruelty and violence. 'And this', adds the English surgeon, 'is done often, setting fire to their villages, and carrying away their Fidalgos prisoners together with their wives and families, butchering the Padres, and robbing the churches without resistance, conceived of a deadly feud, partly out of revenge of the Portugal cruelties at Muskat, but chiefly out of detestation of each other's religion, in so much that quarter is denied on either side.'

A tradition is recorded to the effect that the proud and fastidious Portuguese ladies of Vasai would not walk in the streets unless these were carpeted, and that they had private entrances to the churches. The arched passage over the way which connects the Matriz with a private house nearby, made Da Cunha presume that it was intended perhaps to enable the patrician ladies to pass direct into the church without being seen. But if we identify the adjacent house as the vicarage, it would naturally have a covered passage leading from it to the church. It is also related that Vasai could boast of more than one hundred Portuguese families which were among the highest and richest in India. As an illustration of their opulence we may mention the fact that, at the close of the 16th century, the ladies of a few of the most famous Portuguese families of the town subscribed no less than £ 10,000 (200,000 Xeraphins) to build a nunnery at Goa.

The remarks made by the Italian traveller Gemelli-Careri on the Portuguese villas and gardens in the suburbs of Vasai, which testified the good taste as also the opulence of the nobles, deserve to be quoted :

'The outskirts (of Bassein) were then in a high state of cultivation, nothing appearing for 15 miles but delightful gardens with several sorts of country fruit trees, as palm, fig, mangoes and others, and abundance of sugarcane. The soil is cultivated by Christian, Mahomedan and pagan peasants inhabiting the villages thereabout. They keep the gardens always green and fruitful by watering them by certain engines, so that the gentry, allured by the cool and delightful walks, all have their pleasure-houses at Cassabo (Casabe), to go thither in the hottest weather to take the air, and get away

from the contagious and pestilential disease called carazzo that used to infect all the cities of the northern coast. It is exactly like a bubo, and so violent that it not only takes away all means of preparing for a good end, but in a few hours depopulates whole cities.'

It is an interesting fact that not less than five of the great religious orders that arose in the Roman Catholic Church in Europe during the Middle Ages and later were represented at Vasai, each having its own special church and convent or monastery within the confines of the fort walls. For a dozen years or so after the Portuguese had settled at Vasai, the Franciscans were the sole religious ministers of the colony and its neighbourhood. But after 1548, when Francis Xavier, the future Apostle of the Indies, laid the foundation of the Jesuit mission in Vasai, this Order played the most active part in the spread of Christianity in these parts. This famous missionary had landed at Goa six years before this date, in 1542, and with his advent there dawned a new epoch in the history of the Portuguese in India. During the ten years between his arrival in India and his death in December, 1552, this great ecclesiastic visited Vasai three times. The first occasion was about the end of the year 1544 when he was on his way north to confer with Dom Afonso de Souza, the Governor of Portuguese India, who was then at Diu. The second visit was on the 29th March 1548, in the company of an envoy from the King of Kandy, when Xavier came to see the Viceroy Dom Joao de Castro, who, already in the grip of his mortal illness, was halting at Vasai on his last voyage from Diu to Goa. It may be mentioned that at the end of 1546 De Castro had successfully raised the great siege of Diu by the Gujarat armies, and that in November, 1547 he had undertaken a second expedition to the island on receiving information that the *Sultan* of Gujarat was preparing for yet another attempt to recover that sea-port.

Francis Xavier's third and last visit to Vasai was about the end of the same year, 1548, after the death of the Viceroy Dom Joao de Castro whom he had attended on his death-bed at Goa. This time the object of his visit was definitely the extension of the missionary operations of his Society to Vasai. Availing himself of the arrival of nine Jesuits from Europe, he now laid the foundations of a splendid mission which in course of time extended its activities throughout the Northern Konkan. The first Rector of the mission at Vasai was Fr. Melchior Gonsalves who began the construction of the original church of the society at this place called the 'Church and College of the Holy Name of Jesus'. We learn from the Life and Letters of Francis Xavier that, in spite of his absorption in missionary and proselytising labours of great importance in other parts of the East,

his interest in the Jesuit mission at Vasai was maintained till the end of his life.

The year 1573 is described by a modern writer as 'a red letter epoch' in the annals of the Jesuit mission at Vasai for in this year no fewer than 1,600 natives were baptised in their church, the largest number hitherto reached. These public christenings went on increasing in a progressive ratio with the help of subordinate missions, such as that established at Bandra in 1575, until the year 1588 when in the church at Vasai alone the huge number of 9,400 converts are said to have received baptism. The tribunal of the Inquisition is said to have been first established at Goa in the year 1560, and a Commissary (officer) of the Inquisition was soon after appointed at Vasai also as at the other principal settlements such as Chaul, Daman and Cochin.

By the beginning of the eighteenth century the greatness of Vasai had run out its course. It did not escape those general and particular causes, social and political, which account for the decline and fall of the Portuguese power on the western coast of India. In 1739 it passed into the hands of the Marathas after a long siege by Chimaji Appa, the brother of the *Peshwa* Bajirao I. The details of this famous siege are now fully available to us both from the British records as also from the Maratha chronicles, but they need not be discussed in a work dealing primarily with the history of the fifteenth and sixteenth centuries. After an investment lasting for three months, Vasai capitulated on May 16, 1739, and the brave Portuguese garrison was allowed to march out with all the honours of war. Eight days were allowed to the members of the civil population to leave the city if they wished, taking with them all their movable property. All the Europeans, military, civil and ecclesiastical departed for Goa, while a number of the better-class Indian Christians took refuge at Bombay. With this terrible disaster the Portuguese lost all their northern possessions from Balsad in the north to Chaul in the south, retaining only the small colonies at Daman and Diu.

The passing away of a semi-European settlement on the western coast of India within thirty miles from Bombay after so much prosperity and splendour must needs provoke gloomy reflections which are best described in the eloquent words of a writer in the *Bombay Quarterly Review* for 1856 :

'Thus fell a European city in India as a stately tree, the growth of two centuries, which falls never to flourish again. Melancholy as was the issue, yet no contest had been so glorious for the Indo-Portuguese in none had they earned such unsullied fame since the days when Pacheco, with his four hundred countrymen, repelled the Zamorin's army, and Albuquerque twice conquered Goa. Gallant as many of their deeds unquestionably were when they

struck boldly for supremacy in India, yet their one motive was then a thirst of conquest and desire of gaining by robbery what was beyond the reach of honest industry. But no one who ever told the tale of Bassein's last days breathed an insinuation against the honour and courage of its Indo-Portuguese defenders; and this portion of Anglo-Indian annals would have had a brighter hue for us if the English had not been restrained by their calculations and mercantile propensities from rendering the unhappy city more prompt and valuable assistance—if for the sake of England's ancient ally the Government of Bombay had expended some of their increasing treasure, and responded to the moving appeals of the chivalrous Caitano de Souza.'

For about sixty-four years, from 1739 to 1802, Vasai remained under the Marathas, but the attempt of its new rulers to maintain the importance of the city proved a failure. In spite of their policy of toleration the population continued to dwindle, and the great churches and convents built in the sixteenth century by the religious orders established at Vasai began to fall into the condition of decay and ruin in which we find them now. The English first took Vasai in 1774, and again in 1780, but each time it was restored to the Marathas. Finally, in 1802, by the Treaty of Vasai it became a British possession, and in 1818 it was incorporated in the Bombay Presidency. By this time the place was not thought of as having much military value, the ramparts of the fort were over-grown with brush-wood and scarcely a house was habitable. Even the small guard stationed at one of the gates was withdrawn in 1830. But for the attempt to lease the area within the fort for sugarcane cultivation to one Major Littlewood, and the erection of a sugar factory by the latter in the second half of the nineteenth century, Vasai has continued for the last hundred years almost desolate. The ruins of its monuments have, however, always attracted travellers and antiquarians and to the history of these we shall devote a special chapter. The Franciscan Missionary Brothers have in recent years put up a cottage within the fort area where they maintain an orphanage and horti-agricultural school and help visitors with water and refreshments.

The remains of the Portuguese fort and town of Vasai, situated in their picturesque natural setting north of Salsette island, are among the most interesting historical relics located within easy distance from the city of Bombay. The fortifications and ramparts are tolerably well preserved, but the secular and religious monuments which the Portuguese reared up during the second half of the sixteenth century are largely in a condition of decay and ruin, though the debris and rank vegetation in which they were buried fifty years ago have been removed by the labours of the Archaeological Survey of India during

the last few decades. Before we proceed with an account of these remains it would be interesting to enquire into the reasons for the deplorable condition in which we find the Vasai monuments when compared with the excellent preservation of so many Muslim buildings in Gujarat dating from an earlier period.

There is little doubt that the decay of the monuments was effected in the second half of the eighteenth century during the period of seventy years from 1739 to 1818 when Vasai was under Maratha sovereignty. It must not be supposed, however, that the Maratha rulers were intolerant in the matter of religious worship, or that they were bent on the systematic destruction of churches or the forcible uprooting of the Christian faith from their new possession. The fact is that, after the fall of Portuguese power, Vasai began gradually to be deserted by its population, and its buildings, public and private, began to share the fate of all deserted towns. In the complete absence of all care and repairs, and exposed year after year to the full fury of the monsoon storms, the monuments were bound to suffer from natural decay. Fr. Hull points out that the frequency with which the Portuguese had to re-build their churches at Goa, often at intervals of fifty years, shows how rapid the process of dilapidation must be when there is no attempt to conserve the monuments. Another factor which accounts for the decay, hardly less potent in the mischief which is wrought, was the human element. Once the process of decline had begun, Vasai became a rich mine for dressed stones, timber, pillars and other building material for people of the surrounding villages. By the year 1818 when the fort passed into British hands, the town and its monuments had probably fallen very nearly into the condition in which we see them now with scarcely a house that was habitable. The lease of the area within the fort for a sugar factory by the British after the middle of the last century must no doubt have helped forward the process of demolition and the rifling of old buildings to secure material for the factory and its appurtenances.

An interesting topographical feature of the area within the fort walls of Vasai deserves to be pointed out. While the portion of the old town adjoining the sea wall is covered with the remains of numerous monuments, the area near the land fortifications is entirely bare of all signs of former occupation. Various reasons have been advanced for this feature, all of which appear to be plausible. The Italian traveller Gemelli-Carcri noticed the fact on his visit to Vasai in 1695. He says that this space, which is about one-third of the city area, became de-populated and the dwellings in it disappeared in consequence of a plague which devastated the island of Vasai and the adjacent country towards the end of the seventeenth century. Another argument is that the town being most exposed to attack from the land side of the

fortifications, the site was left unoccupied as being the area where the shot from an enemy besieging the place would fall most thickly. A third explanation advanced is that the site to the north was kept deliberately open and unbuilt upon in order that in the event of a siege it could be converted into a rice-field to be utilised for producing food supplies, there being ample supply of water for irrigation purposes.

Several interesting references to the ruins at Vasai are to be found in the works of the European travellers who visited them during the course of the nineteenth century. The earliest of these was Bishop Heber who was at Vasai a hundred and fifty-three years ago, in 1825, and gives his impressions in his scholarly narrative of a journey from Calcutta to Bombay 1824-25. On his visit he found a small guard stationed at one of the gates of the fort under an English conductor of ordnance, the place being kept locked up and quite uninhabited. He refers to 'the melancholy display of ruined houses and churches,' of which latter he saw no fewer than seven, 'some of considerable size, but all of mean architecture, though striking from the lofty proportions usual in Roman Catholic places of worship, and from the singularity of Christian and European ruins in India', and proceeds with his comments as follows :—

'The Portuguese churches in this place and Salsette are all in a paltry style enough, of Grecian mixed with Gothic. In Bassein they have towering steeples, without spires ; in Salsette, the small arched pediment to hand the bell which is usual in Wales. Their roofs, where they remain, are very steep, and covered with tiles ; and one of those in Bassein, which appears to have belonged to a house of Jesuits, has the remains of a handsome coved ceiling of teak, carved and gilded. They are melancholy objects to look at, but they are monuments, nevertheless, of departed greatness, of a love of splendour far superior to the anxiety for amassing money by which other nations have been chiefly actuated, and of a zeal for God which, if not according to knowledge, was a zeal still, and a sincere one.'

Mrs. Heber, who accompanied the Bishop, did not think that the ruins repaid her for the trouble taken to see them. She also evidently did not think highly of the style of the churches, which were all in the style of conventual architecture common in the early part of the seventeenth century. Thirteen years later, another fair visitor to Vasai, Mrs. Postans, thought that the churches were of great architectural beauty. In her *Western India in 1838* she thus gives her impressions of Vasai :

'The city of Bassein has been long forsaken ; a few fishermen and *shikaris* alone occupy a spot once replete with luxury and power,

and still containing magnificent evidences of taste in the application of great and national wealth. The city contains about eight churches, of considerable size and great architectural beauty; their square towers and ruined galleries surmount the dense masses of foliage which shade the lower portions of the buildings.'

But perhaps the most scholarly antiquarian who ever visited the ruins of Vasai was the late Dr. J. Gerson Da Cunha, the veteran historian and scientist, who no doubt made several excursions to the deserted fort of Vasai before he published in 1876 his brilliant monograph on its history and antiquities which still remains the standard work on the subject. Da Cunha thus refers to the desolate aspect presented by the debris of fallen structures and the jungle growing up around them :

'Churches, convents, colleges, palaces and mansions are strewn about in fragments Silence and gloom reign supreme where once the air resounded with the clash of arms, the roar of cannon, and the tramp of gorgeous pomp and pageants; the traveller's step falls heavily on the ear where once the chant of the religious, who kept high festivals and held gaudy and solemn processions within this recess, rang throughout its now deserted naves and aisles. A busy stage of missionary activity, with many a site consecrated by the footsteps of the celebrated St. Francis Xavier, Fr. Porto, and Fr. Manuel Gomes. But these sites are now obliterated, their edifices roofless, the whole a sublime chaos of huge steeples and towers, or mere shapeless mounds of ancient ruins, amidst which are found the tombs of their founders—a pregnant theme for the contemplation of the philosopher and the moralist, a Montesquieu or a Gibbon.'

Turning now to a detailed survey of the antiquities of Vasai we shall refer first to the fort itself and to the few secular monuments within its area and then describe the ruins of the various churches and convents which are so prominent a feature of the remains. As stated in the preceding chapter, the fort or the city-walls of Portuguese Vasai were constructed in the latter half of the sixteenth century and cover a circuit of a mile and a half. Of the two double gateways of the fort, one is to the south-east on the seaside, and called by the Portuguese the *Porta do Mar*. It is in fine preservation with its massive teakwood doors cased with iron bars and spikes. On this gate, in small characters partly covered by an iron bar, are the words 'The 20th November, 1720'. The sea gate is not so massive as that on the land side, no strong attack being expected in this quarter. Beyond this gate we arrive at the modern 'bandar', where a fine view may be obtained of the creek and of the country round. Within the gate, on the left, stands a small Hindu temple of Hanuman belonging to the

Maratha period. At the opposite extremity of the fort, on the west side, is the Land Gate, called the *Porta da Terra*, which is also like the other, a double gateway, with an angular passage between the inner and outer gates. There is an ornamental inner portal, with a teak door which had fallen down ; and the outer gate is studded with spikes to prevent being rammed by elephants. Besides these two double gateways of the fort, there was originally a postern behind the cloisters of the Franciscan church which was thought unsafe and closed up by the bastion of *Sam Sebastiao*.

The walls of the Portuguese fort at Vasai are in a fair state of preservation except where they have been breached at two opposite ends, due west and east, to make room for the modern high road running through the old city to the *Bandar* and dividing the area within the fort into two unequal parts. The breach in the wall at the west end is close by the Land Gate and the other breach is near the Sea Gate. It is the constant use of this modern road to carry goods from the port into the interior that prevents the old Portuguese city from appearing utterly desolate. The villa lately built within the fort enclosure by the Franciscan Missionary Brothers, with an orphanage and horti-agricultural school, have also helped to introduce some elements of life and human activity in the deserted Portuguese 'Capital of the North'.

The oldest and the most historic among the monuments of Vasai is the Portuguese Citadel or Castle constructed by Nuno da Cunha as early as 1536 probably on the site of the older Muslim stronghold. It is situated between the Jesuits' Church and St. Joseph's 'Cathedral' adjacent to the south wall of the fort. Dr. Fryer and others describe the Citadel as 'circular', but it is in fact a four-square structure measuring inside 150 yards by 100 yards with high walls and three round bastions. Embedded in the wall of the round bastion to the south of the Citadel we find an inscription which must be considered to be the oldest epigraphic record in Vasai and is rendered thus : 'The first Captain who built this fortress was Garcia de Sa, by command of the Governor Nuno da Cunha in the year 1536.' At the south-east corner of the Citadel is an ornamental portal or gateway which was added in 1606 as the inscription declares. The only other objects of interest here are the three round bastions.

Adjoining the Land Gate of the fort of Vasai about a hundred yards away is a projecting bastion which is known under the name of 'Sam Sebastiao'. There was formerly a postern in the walls close by which from its undefended condition was eventually closed up by the building of this stronghold. It was through this bastion that the Marathas forced their way into the fort in 1739 during the siege of Vasai. In 1876 Dr. Da Cunha found during his investigations a large

inscription slab, originally built up into this bastion, lying in utter neglect near the land gateway, and the important historical record which it bore in Portuguese has been rendered by him as follows :—

‘During the reign of the most high and the most mighty King D. Joam of Portugal, the third of the name, when the Viceroy De Afonso de Noronha, son of the Marquis of Villa Real, was governing India, Francisco de Sa being Captain of this Fort and City of Bassein, this bastion, named Sam Sebastiam, was built, on the 22nd of the month of February of the year 1554’.

Adjacent to the Citadel was the Great Square of Portuguese Vasai containing the public buildings and the mansions of the Fidalgos. Its central area is now occupied by an octagonal district bungalow, a Hindu temple of the Maratha period, and a long tank in the shape of the letter ‘L’ which was dug out to supply water to the sugar factory. The mansions which graced the square in the sixteenth and seventeenth centuries are now heaps of ruins, but among these the remains of two deserve special notice. To the left or west of the tank mentioned above is the Palace of the Captain of Vasai, with its front arcades complete and a coat-of-arms over the stairway inside. There are some plain walls near it. Opposite the Captain’s Palace, on the east side of the tank, there is another building which is believed to be the Palace of the ‘General of the North’, and of which only the handsome facade remains. At the north end of the tank is the base of a cross.

It is, however, the ecclesiastical antiquities of Vasai, the imposing remains of the Catholic churches and convents that have attracted most visitors to the place during the last 110 years from the time of Bishop Heber onward. This interest has been fruitful in results as it has stimulated the activities of the Archaeological Survey of India and led it to adopt measures for the conservation of the monuments in order to prevent any further decay. The condition of the churches and attached buildings fifty years ago is thus described by the writer on Vasai in the *Bombay Gazetteer* : “Of these some are perfect except that their roofs have gone, of others only the towers are left. The site of others is marked by broken pillars, porches and cornices, and some are shapeless mounds of ruin. All are overgrown with grass, wall trees, and thick hanging festoons of climbing plants.”

All the great Orders of the Roman Catholic Church in Europe were represented at Vasai under Portuguese rule, each having its own fine church and convent within the confines of the fort. The period at which these orders established themselves was broadly as follows :—The Franciscans (c. 1537), the Jesuits (1549), the Dominicans (1583), the Augustinians (c. 1595), and the Hospitallers of St. John (1695). But, besides the conventual

churches belonging to these five famous Orders, there were two other 'secular' ones, viz., the Matriz or 'Cathedral' of St. Joseph found as early as 1546, and the church named Nossa Senora da Vida ('Our Lady of Life'). This latter, though small, is one of the oldest churches in Vasai, being constructed about the same time as the Castle, i.e., about 1536. It may be called the garrison church and it is in fact attached to the Citadel so that its walls are actually the walls of that fortification. Thus we have a total of seven churches in all, five conventual and two 'secular', amidst the ruins of Vasai, and on their identification Dr. Da Cunha, Father Hull and Mr. Braz Fernandes have devoted no small amount of labour and all their learning. These churches and the colleges and convents attached to several of them are all located in the comparatively small area between the Land and the Sea Gates of the fort. The various religious Orders were thus obliged to build them close to each other, but this has been done, says Da Cunha, 'not on a niggardly scale, for each of these buildings appears to be of dimensions large enough to accommodate all who resided within the fort.'

The largest of the secular churches at Vasai, which is also one of the oldest, was called the Matriz, or the Mother Church of St. Joseph, and in recent times it is known as the Cathedral, though mistakenly, for this name is given to the principal church of a diocese in which a Bishop has his Seat, and Vasai was merely an out-lying part of the Archdiocese of Goa. The Matriz is situated in the south-east corner of the fort near the Sea Gate. The present building probably stands on the site of the original church built about the year 1546 by Dom Joao de Castro, then Governor of Goa. In a long letter bearing on the conversion of the natives of India, King Dom Joao III of Portugal sent orders to this Governor that a parish church should be completed at Vasai and dedicated to St. Joseph, and that the expenses of its endowment were to be met from the revenues attached to certain mosques which had been destroyed by the Portuguese. The Matriz is a large building in the same architectural style as obtains in the other churches, and it is now roofless, though the front and side walls are in a fair state of preservation. The massive high tower is the best preserved and most ornamental in Vasai and can be seen from miles round, especially from the railway train crossing the Vasai creek. Over the door of the church is an inscription cut in stone which has been rendered as under :—

"This Matriz was rebuilt in the year 1601, the most illustrious Sr. Dom Frei Aleixo de Menezes being Archbishop-Primate and the Rev. Pedro Galvao Pereira the Vicar."

The vicar of the Matriz at the time of its re-building, mentioned in this inscription, evidently died at Goa and his remains were later

brought to Vasai as we learn from an epitaph in Latin on a black tomb-stone situated in the chancel to the right of the main altar in this church :

“To this grave are transferred the bones of Pedro Galvao, servant of the Lord, who managed and enlarged this temple. He died at Goa on the 19th March of the year 1618.”

The Franciscans were, as mentioned before, the oldest religious Order to be established in Vasai, and the remains of their extensive church dedicated to St. Anthony and of the convent attached to it, are situated near the Land Gate of the fort. This was the first convent or monastery in Vasai, and was founded, probably in 1537, by the great missionary Father Antonio do Porto, while the church was built later about 1557. Fr. Porto's activities belong to the period between 1530 and 1540 and it has been related of him that “after a very successful missionary career through Vasai, Salsette, Karanja, Chaul, etc., where he is said to have built eleven churches, converted 10,150 heathen, and destroyed 200 pagodas, he returned to Vasai and worked there till his death at an advanced age.” His labours as an evangelist in these parts are thus considered as second only to those of St. Francis Xavier. The Franciscan Church of the Invocation of St. Anthony has a porch of three arches at the entrance and is fairly well preserved. Unlike most of the Vasai buildings, it is built of dressed stone, and has basalt in its staircases, arches, windows and door posts. The four chapels as also the central nave contain a number of tombs of notables, the earliest being, dated 1558. This bears the epitaph “The tomb of His Majesty's Councillor, who died on the 24th August 1558 and of his wife Donna Luiza da Silva, and his heirs.” There is a segmental arch inside the church wonderfully well built. We learn that the village of Mont-Pezier (Mount Poinsur) was also made over to the Franciscans for the endowment of this church during the governorship of George Cabral. St. Francis Xavier was thrice at Vasai, once in 1544 and twice in 1548, and each time he stayed as a guest in the Franciscan convent. We cannot, however, say whether he resided in the present buildings, for the date of their erection is not known. The convent was the largest and most important monastic building in Portuguese India after that attached to the Church of St. Francis Xavier at Goa, and connected with it was a college. In 1634 there were thirty Franciscans staying at Vasai.

Among the most famous of the monuments at Vasai are the Church and Convent of the Jesuits. Mr. Postans, referring to this and the Franciscan Church, says (1838) : “The most perfect and handsome churches now remaining at Bassein are those of St. Paulo and St. Francis.” The church possesses the finest facade among the

buildings of the city, with a noble arch, columns with fluted shafts and corinthian capitals, and the Jesuit monogram I. H. S. sculptured on the lintel and above the pillars. In the sanctuary there are a couple of tomb-stones bearing inscriptions in Portuguese to the effect that they contain the remains of two pious ladies, "noble helpers of this College", who died in 1591 and 1628, respectively. Attached to the church are the ruins of the College over-grown with climbing plants and wall trees but still in good condition. Pietro Della Valle, the Italian traveller, passed a night at Vasai with the Rector of the College, on 29th March 1623, on his arrival at Vasai from Daman with letters of introduction from the Jesuit college at the latter port. He also refers to a terrific hurricane from which Vasai suffered at the beginning of the seventeenth century.

Dr. John Fryer, who visited the Jesuit College at Vasai in 1674, says that it was called an "Academy" and that it contained a library "with classes of historians, moralists and expositors". He states that the students who attended the College for instruction lived in the town. "It is a College of polite structure", he adds, "in the portico is a copy of Angelo's, representing the Resurrection; above stairs, as well as below, are fine square cloisters, as all their collegiate churches have, on the sides whereof are their cells." In 1634 there were fifteen Jesuits attached to the church and the College, though some of them served in the churches of the neighbourhood, at Manikpur, Nirmal, etc.

The Church of the Jesuits at Vasai has in recent years been roofed over and partly repaired in connection with the pilgrimage and the feast in honour of St. Gonsalo Garcia of Vasai who attained the honour of martyrdom and subsequent canonisation. Born at Vasai of a Portuguese father and a 'Canarim' mother, Gonsalo Garcia joined the Franciscan convent as a lay brother, went to Japan with some friars of this Order, was murdered at Nagasaki in that country in 1597, and was later "beatified" by a Papal Bull in 1627 and finally canonised by Pope Pius IX in 1862. "The native Christians of Bassein and Salsette", says Dr. Da Cunha, "who are mostly descendants of the once sturdy race of the Bhandaris and the industrious Kolis, have every reason to feel elated at such an event." The festival, by bringing the Jesuit church into use, has helped in preventing any further dilapidation of this monument.

The survey of the remaining monuments at Vasai will not detain us long for they are mostly heaps of ruins. Those belonging to the Augustinian friars and to the Hospitallers of St. John of God have now been fairly definitely identified. The Augustinians came to Vasai in 1595 at the end of the sixteenth century, and in the year 1634 there were eight members of the Order in residence, and the name of their church appears to have been "N. S. da Annunciacao".

The Dominican Church and Convent built about 1583 have been also identified by Fr. Hull from the presence of the emblems of this famous Order over the side door of the church which is situated near the Great Square to the north of the Palace of the General of the North. Their heraldic crest and emblems consist of a cross with fleur-de-lis ends, two stars at the end of rods, and two dogs holding lighted torches in their mouths. Another structure, to which references have been made by some travellers, is the Misericordia at Vasai, situated somewhere near the Citadel. It was a home for widows, orphans and the sick managed by pious lay people, an institution for social service of a type similar to those bearing the same name in the cities of mediæval Europe.

We have now surveyed the principal secular and religious monuments whose remains remind us of Portuguese rule in these parts for two hundred years from the first acquisition of Vasai by Nuno da Cunha in 1535 from Sultan Bahadur to the loss of the city to the Marathas after a great siege in 1739. But, as Dr. J. Gerson Da Cunha has well observed, architectural remains are not the only monuments of the Portuguese sway at Vasai. Referring to the system of inter-marriages with the natives, first introduced by the great Albuquerque, and the immense number of converts to Christianity made by the Jesuit and other missionaries, giving rise to the well-known Christian community on this side, he concludes as under :—

‘It (Bassein) was one of the centres from which radiated the influence of their policy, the effects of which are yet discernible in the religion and race they left behind, and when all that is made up of stone and mortar is entirely swept off the earth’s surface, or washed away by the action of the annual deluge that attends every monsoon, there will yet remain in Bassein and its vicinity vestiges of a kind far more lasting than the materials that are liable to the changes and permutations decreed by Nature’.

They seem to have seized Parnera and to have remained there till they were driven out in 1568. In 1569 the Portuguese attacked the Jawhar Kolis and passed through their country as far as the foot of the Sahyadris. In 1570 the kings of Ahmadnagar, Bijapur, Kalikat and Achin in Sumatra formed a great league against the Portuguese. Murtaza Nizam Shah of Ahmadnagar, who was stirred to great exertions by the hope of securing Chaul, Vasai and Daman, led a mighty army against Chaul. The siege was pressed with vigour and with great loss of life, but such was the courage and skill of the defence that after wasting several months Murtaza was forced to retire. The Bijapur attack on Goa was equally unsuccessful and the Portuguese gained much honour and respect. From Chaul Murtaza sent a body of 5,000 horse to ravage the Portuguese territories in

Thane, but the Portuguese drove them off and invaded Ahmadnagar territory, attacking Kalyan and burning its suburbs. In 1581 Portugal was conquered by Spain and its eastern possessions passed to the Spaniards without a struggle. In 1583, on his final conquest of Gujarat, the Emperor Akbar attempted to win back Vasai and Daman. But the Portuguese met the Moghals with so vigorous a defence that they were forced to retire. A favourable treaty was afterwards concluded, partly by the good offices of a Portuguese lady who was an inmate of Akbar's household. In the same year the Portuguese ravaged the Koli country, but suffered considerable loss from the activity of the enemy who, they said, jumped from tree to tree like monkeys. In 1594 the Ahmadnagar king attacked Chaul or Revdanda, and detached a body of horse to ravage Vasai.

Though, for fifty years more, they lost none of their Thane possessions, the power of the Portuguese began to wane at the close of the sixteenth century. In 1597 the Dutch, "the scourge of Portuguese pride," appeared in Indian seas. In 1609 the governor of Musalman Chaul attacked and harassed the Portuguese at sea. Two years later Malik Ambar, the Ahmadnagar minister, sent an army to take Vasai and Salsette but failed. In 1612, in consequence of an injury done to their fleet at Surat the Moghals besieged Daman, Vasai and Chaul, desolated the country, and had to be bought off. In the same year the naval fame of the Portuguese received a serious blow by the defeat of a great Portuguese fleet by four English ships at the mouth of the Tapi. In 1614 the Portuguese concluded a favourable treaty with the Emperor Jahangir. And for the next thirty-five years, though they suffered serious loss in other places, the Portuguese continued to hold their Thane possessions without loss in area and apparently with an increase of wealth. In 1640 Portugal made itself independent of Spain, and, for a few years, fresh interest was shown in its eastern possessions.

During the sixteenth century hardly any references have been traced to the inland parts of south and east Thane. Except the forts of Karnala and Sankshi now in Kulaba district, which remained under Gujarat till the middle of the century, south and east Thane were under the Ahmadnagar kings, several of the hill-forts being held by local tributary chiefs. These districts, of which Kalyan was the head, passed to the Moghals when Ahmadnagar was taken in 1600. They were soon after recovered by Malik Ambar, the Ahmadnagar minister, who held them till his death in 1626, and is said to have surveyed the land and improved the revenue system. After Malik Ambar's death the south of Thane or Kalyan was kept by the Moghals for ten years and then made over to Bijapur. During all this time the wild north-east, apparently as far south as about Bhiwandi and the hill-fort of

Mahuli, was held by the Raja of Jawhar and other Koli chiefs. The Kolis had three leading towns, Tavar to the north of Daman, Vazen perhaps Vasind, and Darila apparently Dheir near Umbergaon, a considerable town of great stone and tiled houses.

In 1534, when Vasai and Salsette were ceded to the Portuguese, they found the land guarded by stockades and fortified posts. Besides the land revenue which was taken in kind, there was miscellaneous cash revenue from cesses on cocoanut oil, opium, cotton, palm spirits, vegetables, fish, sugarcane and betel-leaf, and on butchers, dyers, fishermen and shepherds. In 1538, four years after it came under Portuguese management, Vasai is described as a difficult river with an excellent beach for small boats in the stormy season. The town was large, the resort of many people and nations. The land was level, and the soil rich and strong. In the rains it was under water and walking was impossible. There were great groves of trees, and many reservoirs and lakes notable for their flights of steps and for their buildings and carvings. Salsette was famous for the ruins of the great and beautiful city of Thane, and the mighty cave temple of Kanheri. The island was very rich and well provided with food, and with poultry and small and big game. In the hills was plenty of timber for ships and galleys. Though terribly ruined by the ravages of the Portuguese and of the Gujarat kings, Thane was a great city, with 900 gold-lace looms and 1,200 white cloth looms. The low pleasantly-wooded island of Bombay had much game and plenty of meat and rice; its crops were never known to fail.

Whatever damage they may have done when they first conquered the country, the Musalmans seem, long before the Portuguese came, to have ceased to interfere with the religion of the Hindu. The Portuguese found many sacred ponds and fine temples near Vasai, and De Castro is full of the beauty of the buildings at Thane whose stones and bricks were fitted without mortar.

On their transfer to the Portuguese in 1534, the Thane coast was made a separate charge and placed under a General of the North, the second layman in India whose headquarters were at Vasai. Lands were granted in estates of a varying number of villages to Portuguese officers and soldiers, who paid a quit-rent originally in cash, but afterwards partly in cash and partly in grain. Many of the villages near Vasai and Sopara were originally granted by the Viceroy Dom Joao de Castro about 1538. About twelve years later, it was found that the produce of some of the villages had been fraudulently underestimated and a slight increase in the rents was made. The state revenue seems to have been a very small share of the produce. The receipts are returned as varying from Rs. 67,600 in 1539 to Rs. 48,970 in 1547.

From 1560, when they had gained the whole coast from Daman to Karanja, the Portuguese divided their Thane territories into two parts, Daman and Vasai. Under Daman were four districts, viz., Sanjan, Dahanu, Tarapur and Mahim; under Vasai were seven districts, viz., Asheri, Manor, Vasai proper or Saivan, Salsette, Bombay, Belapur or Shabaz and Karanja. These divisions included *thanadaris* or village groups under an officer styled *thanadar*, towns or *kasbes*, custom-houses or *mandvis*, villages or *aldeas*, hamlets or *sarredores*, the Maratha *sadetors* meaning cut off or divided, and wards of towns or large villages called *pacharias*, the Marathi *pakhadis* meaning a dividing lane. There were also lands or *terras*, and gardens or *hartas*, the modern oarts. Of the seven divisions of the Vasai territory, Asheri had thirty-eight villages and six part villages, or *pakhadis*. Manor had forty-two villages and a hamlet, or *sadotor*. Saivan or Saibana, on the left or south bank of the Tansa about fifteen miles north-east of Vasai, was the headquarters of six petty divisions. These were the town of Vasai with sixteen wards or *pakhadis* and eight gardens; the town of Agashi apparently, known as the *Kasbe*, with twenty wards or *pakhadis* and ten gardens; the sub-division or *pargana* of Salga with eighteen villages and three lands or *terras*; the division of Hera or Virar with twenty villages; the division of Kaman, six miles east of Vasai, with twenty-five villages and two hamlets or *sadetors*; and the division of Anjari or Anjor, on the Vasai creek near the mouth of the Kamvadi, with eighteen villages and seven hamlets or *sadetors*. Salsette had two divisions, the isle of Salsette with one *pargana* and ninety-nine villages, and the town of Thane with eight wards or *pakhadis*. The island of Belapur, or Shabaz or Asbayo, had three sub-divisions, Panechan or Panchnad to the east of the Persik hills with thirty villages, Kairana the coast strip from opposite Thane to opposite Trombay with seventeen villages and Saboy or Shabaz, now called Belapur, with seventeen villages. The island of Karanja or Uran included the town or *kasbe* of Karanja, the land of Bendolæ or Bhendkula, and the three islands of Nave or Hog Island, Sheve and Elephanta.

Though subject to occasional in-roads from Gujarat, the Koli chiefs of Jawhar, the Moghals, and Ahmadnagar, the Portuguese territory was fairly free from attacks by land or sea. Internal order was well preserved. The only notice of riot or rebellion was in 1613 (13th April), when fighting went on in Karanja and other towns for several days and many Portuguese were killed.

On the cession of Salsette and Vasai, in 1583, the Portuguese built places of a special strength at Vasai, Asheri, Tarapur, Mahim, Daman and Chaul; they raised royal fortifications at the headquarters of each sub-division; they guarded the entrances to their territories with

forts and stockades ; they armed several of their colleges and monasteries ; and, in each village, the proprietor built a watch-tower or moated grange. The hill of Asheri was strongly guarded from the time of its capture in 1556. The present fortifications of Vasai belong to about the close of the sixteenth century and the beautiful fort of Thane was not begun till about 1730, and was unfinished when Salsette was taken by the Marathas in 1739. Of creek-bank defence the most notable were four wooden stockades at Sopara made by General Luis de Dello Pereira, soon after the cession of Vasai (1534). Of fortified custom houses or factories the chief was at Manor, and fortified religious houses were mentioned at Yerangal near Versova, and at Bandra in Salsette.

In the north-east, south of Asheri and Manor, a line of forts along the east or left bank of the Vaitarna, guarded Kelva-Mahim from the raids of the Koli chiefs of Jawhar. Of this line of forts traces remain in the villages of Haloli, Sakda, Dhasar and Pargaon.

South of the Tansa river, the fort of Mandvi about fifteen miles north-east of Vasai and the stockaded post at the sub-divisional town of Saivan, five miles east of Mandvi, guarded the rich lands of Sopara and Vasai from attacks along the left or south bank of the Tansa valley. The Tungar and Kamandurg range, running south from Mandvi, protected the eastern frontier as far as the valley of the Kamvadi or Bhiwandi river and the Vasai creek. The entrance to Vasai along the right or north bank of this creek was blocked by a line of forts, Kambe about two miles west of Bhiwandi, then Ju-Nandikna, Gava (Gaunna of the maps), Phiringpada, Paigaon, Navgad or Sassu-Navghar, and the striking fortified hillock near the sub-divisional town of Kaman. Further south there was a fortlet named Santa Cruz, on the river-bank opposite Kalyan, and in the mainland across from Thane are remains of mansions or granges which seem to have been fortified. Another row of watch-towers guarded the coast from Shirgaon, fifty miles south to Dantivare at the mouth of the Vaitarna.

Under the General of the North, these forts were commanded by officers, of whom the chief were the captains of Vasai, Daman, Chaul and Salsette. Besides them, between the Vaitarna and Karanja, were fourteen commandants of forts and stockaded posts. The captains and commandants were chosen from certain noble families who had a right to the posts. The commands were usually held for a term of three years ; but this was not always the case, as the captain of Karanja is mentioned as holding the command for life. Under the captain in all important places, the garrison consisted of a certain number of Portuguese soldiers, some native troops and some slaves. To guard the open country nine flying companies, or volantes,

were enlisted, and afterwards, as the Moghals and Marathas grew more troublesome, fresh companies of sepoys were formed. There were also two troops of horse, one at Vasai and the other at Daman. Finally, there was a militia, the owners of every village supplying a few men. At sea the Portuguese early established their supremacy and forced Indian traders to take their passes. The coast was guarded by a line of forts, and companies were named from the Goa army-corps to man country-boats.

To keep the rule of the sea was no easy task. In 1570 there were two centres of hostile shipping, one on the Malabar coast and the other in the Persian gulf. Some writers describe these rivals of the Portuguese as peaceful traders. A few may have been driven from trade by Portuguese exactions. But the bulk of them were pirates and rovers, who not only seized Portuguese ships and ships carrying Portuguese passes, but landed and pillaged the Portuguese coasts. So dangerous were they that (1570) the Portuguese had to keep two fleets to act against them as also the fleet of the south. In the beginning of the seventeenth century after the arrival of the Dutch (1597) and the English (1609), the Portuguese ceased to be the first naval power. Till 1624 they continued strong enough to force native craft to carry their passes. But with the English capture of Ormuz in 1623 and the Dutch capture of Kochin in 1663, the claim of supremacy at sea was given up.

At Vasai, besides the General of the North, the captain and the garrison, there was factor, a collector or *thanadar*, a magistrate or *ouvidor*, a police superintendent or *meirinho*, a sea bailiff, a commissary of ordnance, *almozarife dos almazens*, a king's solicitor, an administrator of intestates, a chief of the night-watch, and a master-builder. Besides Vasai, there were collectors or *thanadars* at Thane, Agashi, Bandra and Karanja. There was also overseer who heard appeals from all the magistrates or *ouvidors* of the north coast. In Vasai and Chaul criminal and civil cases were settled by magistrates who were subordinate to the captain of the fort and were often forced to decide as the captain pleased. From the decision of the magistrate in early times an appeal lay to the Supreme Court or *Relacao* at Goa. Afterwards, about 1587, one of the bench of six or eight judges, or *desembargadores*, was appointed to Vasai. These judges, besides appeals, heard important civil and criminal suits. The cases were conducted by native pleaders who were said not to have had much knowledge of law.

Of the Portuguese land system, the chief peculiarity was the grant of large areas of land, at from four to ten per cent of the regular rental, to landlords of *fazendeiros*. These landlords were generally soldiers or other Portuguese who deserved well of the state. The grant

was nominally for three lives. But, at least in later times, the holder seems to have generally succeeded in having the grant renewed.

No right in the land was conceded to the husbandmen or tenants. They seem to have been treated as part of the estate and not allowed to leave it. Besides the villages tilled by their tenants, large land-holders generally set apart some of their land as a home-farm, and worked it by slaves most of them being Africans. Lands not granted on quit-rents were let from year to year, by the heads of villages or *mahtaras* to husbandmen who paid partly by a share of the crop and partly by money cesses. These lands were under the supervision of state factors or *veadors*. Towards the close of the seventeenth century (1688), about one-half of the revenue of the province of Vasai was drawn from quit-rents. The rest was partly land revenue collected from peasant-holders and partly the proceeds of cesses.

From the beginning to the close of their rule in Thane, with ebbs and flows of zeal and of success, the conversion of the people to Christianity continued to be one of the chief objects on which the Portuguese spent their energy and wealth. In 1534 Goa was made the seat of a bishop, and, about the same time, when Gujarat king ceded Vasai and Salsette, the great Franciscan Antonio do Porto devoted himself to the spread of Christianity. Between 1534 and 1552 he destroyed 200 temples, made over 10,000 converts, built twelve churches, and, by founding orphanages and monasteries, secured a supply of native priests. Up to 1542 the work of conversion was almost solely carried on by the Franciscans. In 1542 St. Francis Xavier landed at Goa, and, with the help of a large body of Jesuits who arrived in the following year, Christianity spread rapidly. St. Xavier took much interest in Vasai. He established a Jesuit seminary in 1548, sent missionaries to Thane and Chaul in 1552, and thrice visited Vasai in 1544, 1548 and 1552. Between 1570 and 1590 the Jesuits were most successful in Vasai. They took pains to make Brahman and other high-caste converts, knowing that if the Brahmans became Christians, many of the lower classes would follow their example, and they made the baptism of converts an occasion of great splendour and rejoicing. With these encouragements the number of converts rose from 1,600 in 1573 to 9,400 in 1588. At Thane, about 1560, Gonsala Rodrigues, the superior of the Jesuit monastery, did much to spread Christianity by buying young children and collecting orphans. In three years he baptised from 5,000 to 6,000 souls. From a special grant this father founded a Christian village in the waste and wooded but well-watered valley of Vihar. Ground was bought and divided into holdings, and, in a few years, there was a population of 3,000. They had 100 bullocks and ploughs, and an ample store of field tools all held in common. The villagers had religious teaching everyday, and

in the evening, joined in singing the Christian doctrines. Close to the village was a famous shrine to a three-headed god, which pilgrims from Gujarat and Kanara used to visit. This temple came into the possession of the Christians, the idol was broken, and the temple enlarged and dedicated to the Christian Trinity. The place was unhealthy and the village had to be moved to a higher site. While the Jesuits were so successful in Vasai and in Thane, Manuel Gomes, a Franciscan (1575-1590) made so many converts in Salsette, about 6,000 in Bandra alone, that he gained the name of the apostle of Salsette, and won for his order the high post of Christian fathers in all the villages of Salsette and Karanja.

During the seventeenth century the conversion of Hindus, and the building of churches and monasteries was continued, and the church, especially the Jesuits, grew in wealth and power. In 1634 there were sixty-three friars at Vasai, thirty of them Franciscans, fifteen Jesuits, ten Dominicans and eight Augustines. The parts about Vasai were thickly peopled with Christians, and the city was studded with Franciscan, Dominican and Jesuit chapels. At Thane there was a cathedral and many churches. In 1664 the Jesuits suffered by the transfer of Bombay to the English. But the church was richer and more powerful than ever. In 1673 there were, in Thane, seven churches, four colleges and two convents. All the people in Salsette were Christians, and the Bandra Jesuits lived sumptuously, most of Salsette being theirs.

Persuasion at least in early days seems to have been the chief means of conversion. Two hundred years earlier, in 1320, three or four Latin friars, in spite of Musalman persecution, found the Hindus and Parsis ready to listen and be converted. The zeal of the early Portuguese friars, their generous gift of alms, and their kind care of orphans, made many believe that the faith was better than the old faith, and, in later times other converts were won by the splendour of the Christian churches and the pomp of the Christian ceremonies. Converts, especially high-caste converts, were treated with honour and distinction and, for the first fifteen years after conversion, the poorer class of Christians were freed from the payment of tithes and first fruits. The fact that the people of Bandra remained Hindus till about 1580, seems to show that the earlier conversions were the result of persuasion and encouragement, not of force. At the same time, from before the middle of the sixteenth century the persuasion and encouragement to become Christians were accompanied by rules discouraging and suppressing Hinduism. In 1546 the king of Portugal ordered idols to be broken, idol-maker and performer of Hindu rites to be punished, and, mosques to pay tribute. These orders were not enforced and were renewed in 1555. Feasts and ceremonies, and

Brahmin preachings, washings and burnings, were forbidden ; any one found with idols was to be sent to the gallows and his property forfeited. These orders were for a time evaded by the grant of licences, but they seem to have been enforced in 1581.

In 1560 the Inquisition was established in Goa, and by 1580 agents of the Inquisition, called commissaries, were at work in Chaul, Vasai and Daman, collecting offenders and sending them for trial and punishment to Goa. During the seventeenth century the power and wealth of the church increased. In 1673 they are said to have held most of Salsette. In 1695 the revenue of church was said to be greater than the revenue of the king and in 1720 the power of the church was so great that they supervised the General of the North and made his government both uneasy and precarious. The wealth of the church came partly from fines, tithes, first fruits, and state grants of money, but chiefly from gifts of land made both by the King and by private persons.

Till the middle of the seventeenth century during the Portuguese rule order was kept and life and property were fairly safe, large areas of salt waste and salt marsh were reclaimed, tillage was spread, and better and richer crops were grown. The country was covered with fine buildings ; the nobles and landlords were wealthy and prosperous, and the tenants, though they had little freedom, seem to have been well off. In 1630, Goes wrote that " the persecution of the Portuguese had driven the people into the neighbouring territories, and that between Bassein and Daman the greater part of the land was untilled." If this account is correct the districts soon recovered their prosperity. In 1634 the island of Karanja was so well managed that its surplus revenue was used to help to spread religion in and out of India.

During the sixteenth and the first part of the seventeenth centuries, the north-east of Thane remained under the Koli chiefs of Jawhar, and, except for a year or two at the beginning of the seventeenth century, the south-east or Kalyan district remained under Ahmadnagar. On Malik Ambar's death in 1626, Kalyan passed to the Moghals. In 1632 Shahaji, Shivaji's father, in the name of a child of the Ahmadnagar family, seized Nasik, Trimbak, Sangamner, Junnar and Kalyan. In 1635 a Moghal officer was sent to recover the Konkan from Shahaji, and forced him to take refuge in the hill-fort of Mahuli, and at last to surrender. In 1636, as Adil Khan of Bijapur agreed to pay tribute, the Konkan was made over to him and in the following year (1637) Shahaji entered the service of Bijapur. For ten years the province of Kalyan, which is represented as stretching from the Vaitarna to the Nagothana river, remained under Bijapur. The places specially noticed as ceded to Bijapur are Jival or Chaul, Babal or Pabal, Danda-Rajapuri and Chakan in west Pune. In 1648, by the

capture of Kalyan, Shivaji began the series of aggressions which, after a century of disorder, ended in the Marathas gaining the whole of Thane, except the island of Bombay and some tracts in the wild north-east. Kalyan town was re-taken by the Moghals about 1661, but Shivaji seems to have continued to hold part of the Kalyan district, as in 1663, he collected a force near Kalyan, and, in 1666, seems to have had an officer whom he styled governor of Kalyan.

In the North Konkan ports, the sixteenth and the first half of the seventeenth centuries, between the arrival of the Portuguese and the establishment of the English at Bombay, was on the whole a time of declining trade. At the beginning of the sixteenth century, Chaul and Thane, especially Chaul, were great centres of foreign trade, having direct dealings westwards with the Persian Gulf, the Arabian coast, Egypt and the African coast ; southwards with Ceylon ; and eastwards with Chittagong, Achin in Sumatra, and Malacca. In the latter part of the sixteenth century their old share of the commerce with Europe left the North Konkan ports for Goa and for Diu in south Kathiawar. Still Vasai, Mahim, Thane and Chaul maintained a large coasting traffic with the Malabar, Gujarat, and Sindh ports, and a considerable foreign trade with the Persian Gulf, the Arabian and African coasts, and, to some extent, with European trade centering in Surat in the hands of the British and the Dutch, passed more completely from the Konkan ports, and in the decay of Portuguese power the foreign trade with Persia, Arabia, Africa and the east declined. There remained little but a coasting traffic, chiefly north with Surat and south with Goa.

Under the Portuguese, foreign trade was a monopoly of the king. Most of the local sea trade was in the hands of free-traders or interlopers, whom the Portuguese government tried to put down. The Vasai timber trade was chiefly carried on by the captains of forts and other government officers.

During this period the chief local marts were Chaul, Thane, Mahim and Vasai ; and among places of less importance were Panvel, Kalyan, Bhiwandi, Kelva-Mahim, Agashi, Tarapur and Bombay. The chief marts with which the Thane ports were connected were, in India, Cambay, Diu and Surat in Gujarat, and Diul-Sindhi in Sindh, Goa, Kalikat, Cochin and Kulam on the Malabar coast, and Chittagong on the Bay of Bengal. Of foreign marts, there were Ormuz and Maskat in the Persian Gulf ; and Shehr Julfar and Kalat on the Arabian coast ; Socotra and Aden at the mouth of the Red Sea ; Mocha Jidda and the Abyssinian coast on the Red Sea ; Zaila, Quiloa, Brava, Mombaza, Melinda, Megadozo and Sofala in East Africa ; Colombo in the south and, in the east, Mallacca and Achin. The articles of trade between the Konkan coast and these different marts were, of

food, rice, pulses, vegetables, cocoanuts and betel-nuts, which were sent from the Thane ports to Gujarat, Malabar, Persia, Arabia and Africa; cocoanuts, betel-nuts and palm-sugar, which were brought to Konkan ports from the Malabar coast; dates and raisins which came from the Persian Gulf and the Arabian coast; and Spanish wines and cases of strong waters which were brought from Europe. Of building materials, large basalt columns and pillars as fine and hard as granite were sent from Vasai to Goa, and great quantities of the finest teak went to Goa, Gujarat, Sindh and occasionally to the Persian Gulf and the Red Sea. Of articles of dress, cotton cloth made in the district, coloured cloth, gauze and muslins embroidered with silver and gold, brought by land from Burhanpur and Masulipattam, were sent to the Malabar coast, Diu, Persia, Arabia and Africa. There was a considerable local manufacture of silks and velvets, and silk stuffs, brocades, and coloured silks were brought through the Persian Gulf, the Red Sea, and round the Cape of Good Hope. Of woollens, blankets were made in Thane, and rugs, scarlet woollens, coarse camlets, and Norwich stuffs were brought from Europe round the Cape, and by the Red Sea and the Persian Gulf. There was an export of sandals and an import of Spanish shoes. Among miscellaneous articles of dress brought from Europe were gloves, belts, girdles, beaver hats, and plums of feathers. Of personal ornaments, jewels, pearls, and strings of agate beads went from Chaul to the Arabian coast, and turquoises, pearls, and lapis lazuli came to the Konkan from the Persian Gulf, ivory came from Abyssinia and was a great article of trade at Chaul, and cut and branch coral came from Europe. Of spices, in which there was a great trade, pepper came from the Malabar coast and Sumatra, cinnamon from Ceylon, camphor from Borneo, and cloves from the Moluccas, partly direct and partly through Malabar ports. These spices were used locally, sent inland, or re-exported to Persia and Arabia. Of drugs, opium is mentioned as brought from Burhanpur in Khandesh and from Aden. Of dyes, indigo was brought from Burhanpur, madder from Arabia, dragon's blood from Secotra, vermilion from Ormuz, Aden and Europe, and pigeon's dung from Africa. Of perfumes, rose water was brought from Ormuz and Aden. Of metals, gold was brought from Safala and Abyssinia in Africa, and ingots and coins from Europe, silver, copper, brass and lead came from Europe, and quick silver from Ormuz and Aden, and from Europe round the Cape. Of articles of furniture and hardware, desks and blackwood tables inlaid with ivory were made in Thane, and arras, large looking-glasses, figures in brass and stone, cabinets, pictures, fine basins and ewers, drinking and perspective glasses, swords with inlaid hilts, saddles, fowling pieces, toys and knives were brought from Europe. Of animals, dogs were brought from

Europe, horses from the Persian Gulf and the Arab coast, and elephants from Ceylon. Pilgrims were carried to Mecca and slaves were brought from Abyssinia.

The chief changes in the merchants were the disappearance of the Chinese, and the decrease of Arabs and Turks, and, to some extent, of local Musalmans. Of new-comers, there were the Portuguese, English, Dutch, French and Danes. In the beginning of sixteenth century many Moorish coast Hindus, as in previous periods, were found at long distances from India. A ship with a Hindu captain was met in the Red Sea ; and the Portuguese and Dutch found Hindus in the Persian Gulf, in Mocha, in the African ports, in Malacca, and in Achin in Sumatra.

During this period the Thane coast was famous for its ship-building. Between 1550 and 1600 great ships built at Agashi and Vasai made many voyages to Europe, and, in 1634, the English had four pinnaces built for the coast trade, two at Daman and two at Vasai. The Portuguese historian Gaspar Correa gives a fuller description than any previous writer of the crafts which were built at this time in the Konkan ports. The local boats in ordinary use were of two kinds, one which had the planking joined and sewn together with coir thread, the other whose planks were fastened with thin nails with broad heads which were rivetted inside with other broad heads fitted on. The ships sewn with coir had keels, those fastened with nails were flat-bottomed ; in other respects they were alike. The planks of the ship-sides went as high cargo, and above the planks were cloths thicker than bed-sacking and pitched with bitumen mixed with fish and cocoanut oil. Above the cloths were cane mats of the length of the ship, woven and very strong, a defence against the sea which let no water pass through. Inside, instead of decks, were chambers for the cargo covered with dried and woven palm leaves, forming a shelving roof off which the rain ran and left the goods dry and unhurt. Above the palm-leaves cane mats were stretched, and on these the seamen walked without doing any harm. The crew were lodged above ; no one had quarters below where the merchandise was stored. There was one large mast and two ropes on the sides, and one rope at the prow like a stay, and two halliards which came down to the stern and helped to hold the mast. The yard had two-third of its length abaft and one-third before the mast, and the sail was longer abaft than forward by one-third. They had only a single sheet, and the tack of the sail at the bow was made fast to the end of a spirit almost as large as the mast with which they brought the sail very forward so that they steered very close to the wind and set the sails very flat. They had no top-masts and no more than one large sail. The rudder which was very large and of thin planks, was moved by ropes which ran along the outside of the

ship. The anchors were of hard wood, and they fastened stones to the shanks so that they went to the bottom. They carried their drinking water in square and high tanks.

Of Gujarat boats, the ordinary deep-sea traders were apparently from 100 to 150 tons burden. Besides these, there were in the sixteenth century some great vessels from 600 to 1,000 tons burden, and in the seventeenth century, in the pilgrim traffic between Surat and Mocha, still large ships were used, from 1,400 to 1,600 tons and able to carry 1,700 passengers.

Goa was also a great ship-building place. In 1508 the Portuguese found that the carpenters and calkers of the king of Bijapur had built ships and gallery after the model of the Portuguese, and in 1510 twelve very large ships were built after the model of the *Flor de la Mar*.

According to Varthema (1500) the Kalikat boats were open and of three or four hundred butts in size. They were built without oakum, as the planks were joined with very great skill. They laid on pitch outside and used an immense quantity of iron nails. The sails were of cotton, and at the foot of each sail was a second stone fastened by two large ropes. One of these Kalikat vessels is mentioned of 140 tons, with fifty-two of a crew, twenty to nail out water and for other purposes below, eight for the helm, four for the top and twenty boys to dress provisions. Very large boats are mentioned as trading to the Coromandel coast.

Many foreign ships visited the Thane ports. In the beginning of the sixteenth century, Maskat was a great ship-building place. In 1510 Albuquerque found two very large ships ready to launch and a fleet of thirty-four ships great and small. The establishment of Portuguese power in the Persian Gulf seems to have depressed the local seamen, as in the beginning of the seventeenth century the Persian Gulf boats are described as from forty to sixty tons, the planks sewn with date fibre and the tackle of date fibre. The anchor was the only bit of iron. The Red Sea ships were larger and better built and were managed with great skill. In the beginning of the sixteenth century large junks from Java and Malacca came to the Coromandel and Malabar coasts, and might occasionally have visited Chaul.

The greatest change in the shipping of this period was the introduction of the square rigged Portuguese vessels. They caused much astonishment at Anjdiv; the people had never seen any ships like them. The vessels in Vasco da Gama's first fleet (1497-1500) varied from two hundred to fifty tons. The size was soon increased to 600 and 700 tons, a change which had the important effect of forcing foreign trade to centre at one or two great ports. Of smaller vessels the Portuguese had varavels and galleys. Before the close of the sixteenth

century the size of the European East India men had greatly increased. As early as 1590, the Portuguese had ships of 1,600 tons ; in 1609 the Dutch had ships of 1,000 tons ; and in 1615 there was an English ship of 1,293 tons. Hindu captains and sailors are mentioned, but the favourite seamen were Arabs and Abyssinians. A great advance had been made in navigation. The Musalmans of Mozambique (1498) used Genoese compasses and regulated their voyages by quadrants and sea charts ; the moors were so well instructed in so many arts of navigation that they yielded little to the Portuguese. Trade was still harassed by pirates though they seem to have been less formidable than they had been in the fifteenth century or than they again were in the seventeenth century. Before the pirates were put down by the Portuguese, Bombay harbour, Goa and Porka on the Kalikat coast were noted centres of piracy.

In November 1664, the island of Bombay passed from the Portuguese to the English. The English had for years been anxious to gain a station on the Konkan coast. In June 1661, as part of the dower of his sister Katherian, the King of Portugal ceded the island and harbour of Bombay, which the English understood included Salsette and the other harbour islands. In March 1662 a fleet of five men-of-war, under the command of the Earl of Marlborough, with Sir Abraham Shipman and 400 men accompanied by a new Portuguese Viceroy, left England for Bombay. Part of the fleet reached Bombay in September 1662 and the rest in October 1662. On being asked to make over Bombay and Salsette to the English, the Governor contended that the island of Bombay had alone been ceded, and on the ground of some alleged irregularity in the form of the letters of patent, he refused to give up even Bombay. The Portuguese Viceroy declined to interfere, and Sir Abraham Shipman was forced to retire first to Suvali at the mouth of the Tapi, and then to the small island of Anjadiv off the Karwar coast. Here, cooped up and with no proper supplies, the English force remained for more than two years, losing their general and three hundred of the four hundred men. In November 1664 Sir Abraham Shipman's successor Mr. Humfrey Cooke, to preserve the remnant of his troops, agreed to accept Bombay without its dependencies, and to grant special privileges to its Portuguese residents. In February 1665 when the island was handed over, only 119 Englishmen landed in Bombay. At the time of the transfer the island is said to have had 10,000 inhabitants and to have yielded a revenue of about Rs. 28,000.

The cession of Bombay and its dependencies was part of a scheme under which England and Portugal were to join in resisting the growing power of the Dutch. A close alliance between the English and the

Portuguese seemed their only chance of safety. In 1656 the Dutch had driven the Portuguese from Ceylon. They were besieging the English at Banatam and blockading the Portuguese at Goa ; " If the Dutch took Goa, Diu must follow, and if Diu fell, the English Company must wind up their affairs." The scheme was ruined by the looseness of the connection between the Portuguese in Europe and the Portuguese in India. The local Portuguese feeling against the cession of territory was strong and the expression of the king's surprise and grief at their disobedience failed to overcome it. Bitter hatred, instead of friendship, took the place of the old rivalry between the Portuguese and the English. Without the dependencies which were to have furnished supplies and a revenue, the island was costly, and, whatever its value as a place of trade, it was no addition of strength in a struggle with the Dutch. The King determined to grant the prayer of the Company and to hand over to them Bombay as a trading station. On the first of September 1668, the ship Constantinople arrived at Surat, bringing the copy of a Royal Charter bestowing Bombay on the Honourable Company. The island was granted 'in as ample a manner as it came to the crown' and was to be held on the payment of a yearly quit-rent of Rs. 100 in gold. With the island were granted all stores, arms and ammunition, together with such political powers as were necessary for its defence and government. In these three years of English management the revenue of the island had risen from about Rs. 30,000 to about Rs. 65,000.

The factor at first thought so poorly of their new possession that, in 1668, they proposed to the Surat Council that Bombay should be given up, and the factory moved to Janjira rock. But soon after, they began to esteem it as "a place of more consequence than they had formerly thought". Under the able management of Gerald Aungier (1669-1677) the revenue rose from Rs. 65,000 to Rs. 92,600 and the population from ten thousand to sixty thousand, while the military force was increased to four hundred Europeans and 1,500 Portuguese native militia.

In 1674 the traveller Fryer found the weak Government house which under the Portuguese had been famous chiefly for its beautiful garden, loaded with cannon and strengthened by carefully guarded ramparts. Outside the fortified house, were the English burying place and fields where cows and buffaloes grazed. At a short distance from the fort lay the town in which confusedly lived the English, Portuguese, Topazes, Gentoos, Moors, and Koli Christians, mostly fishermen. The town was about a mile in length with low houses, roofed with palm-leaves, all but a few left by the Portuguese and some built by the Company. There was a reasonable handsome bazar, and at the end next to the fort, a pretty house and church of the portugals with orchards of Indian fruit.

A mile further up the harbour was a great fishing town, with a Portuguese church and religious house; then Parel with another church and estates belonging to the Jesuits. At Mahim the Portuguese had a complete church and house, the English a pretty customs-house and guard-house, and the Moors a tomb. The north and north-west were covered with cocoas, jacks and mangoes. In the middle was Varli with an English watch. Malabar hill was a rocky wooded mountain, with, on its seaward slope, the remains of a stupendous pagoda. Of the rest of the island, 40,000 acres of what might have been good land was salt marsh. In Kamathipura there was water enough for boats, and at high tides the waves flooded the present Bhendi Bazar and flowed in a salt stream near the temple of Mumbadevi. Once a day Bombay was a group of islets, and the spring-tides destroyed all but the barren hills.

Ten years more of fair prosperity were followed by about twenty years of deep depression (1688-1710). Then, after the union of the London and the English Companies, there came a steady, though at first slow, advance. But for fifty years more the English gained no fresh territory, and, except at sea, took no part in the struggles between the Moghals, Marathas, Sidis, Angres and Portuguese.

The first contact of the Marathas with Thane district came in the first half of the 17th century when the Nizamshahi Kingdom of Ahmadnagar made a resurgence under the able leadership of Malik Ambar who fought an unending battle with the Moghals all over the Deccan till his death in 1626. During the course of this long war Maloji and Shahaji Bhosle rose to prominence as the helpmates of Malik Ambar. On the death of Malik Ambar, Shahaji took upon himself the task of opposing the Moghals in their intention of finishing the kingdom of Ahmadnagar and did his best to save it with all his skill. The year 1627 was marked by events of political importance such as the birth of Shivaji on April 6, the death of Ibrahim Adil Shah on September 12 and the death of Emperor Jahangir on October 29. Shortly before his father's death, Shah Jahan, then a rebel, lay in concealment in the vicinity of Junnar while his family was kept in hiding in the fort of Asheri near the post of Mahim. As soon as he heard of his father's death, he left Junnar and secured the Moghal throne which he ascended on February 4, 1628. Shah Jahan who had distinguished himself in the wars in the Deccan during his father's reign was personally acquainted with the geographical formation of the districts of Nasik, Junnar and North Konkan which included Thane district and knew the influence of Shahaji and the other Bhosles in the region. He therefore decided to subjugate the Deccan particularly the Nizamshahi state which had so long dragged on a precarious existence first under the leadership of Malik Ambar

and now under that of Shahaji. The opportunity to invade the Deccan offered itself to Shah Jahan when Khan Jahan Lodi, the viceroy of the Deccan, rebelled and sought protection with Murtaza Nizam Shah who now called back Shahaji from Bijapur to his service and prepared for a stiff contest with the emperor. Shah Jahan descended into the Deccan in February 1630. The rebellion of Khan Jahan was quelled in the closing months of 1630. In the following year a terrible famine broke out in the Deccan making it very difficult for Shah Jahan to prosecute the war. By recourse to intrigues he tried to reduce the ranks of the Nizam Shah. It may be noted that Lakhuji Jadhav had long ago deserted to the Moghals and now with the support of the emperor he became a source of trouble to the Nizam Shah. Nizam Shah, therefore, invited him for an audience and treacherously murdered him. This created a sense of revulsion against the Nizam Shah and Shahaji again deserted him to join the Moghals. In 1632 Shah Jahan left for the North leaving Mahabat Khan to lead the campaign. Shahaji's position now became untenable with the Moghals and he once again took up the cudgels on behalf of the Nizam Shah. When however the Nizam Shah and his minister Fath Khan became Moghal prisoners after the fall of Daulatabad in 1633 Shahaji put on the throne a young prince from the Nizamshahi family in September 1633. In his endeavour he enlisted the sympathies of the Adil Shah of Bijapur. He resorted to guerilla warfare but soon found himself hard-pressed in all directions. Shah Jahan was now fully roused to this new danger and marched to the Deccan in 1635. He forced the *Sultans* of Bijapur and Golconda into co-operation with the Moghals and devised a consummate plan of operation for closing upon Shahaji simultaneously from all directions. Shahaji had collected under him about 12,000 troops and he now started raiding the Moghal territory as far south as Bidar but concentrated his main activity in the difficult regions of the North Konkan, himself moving between Junnar and Sangamner with fort Mahuli in Thane district as the headquarters of the puppet Nizam Shah. Shaista Khan however hunted him through Junnar and Sangamner when in his extremity Shahaji placed the Nizam Shah in fort Mahuli and began his last effort. Shahaji now came to be severely excluded, cut off from the outer world and hemmed in at fort Mahuli. It was difficult for him to hold out against the full might of the emperor. Shah Jahan now left for Agra in July 1636 entrusting the remaining campaign to Khan Zaman, Aurangzeb and Adil Shah. In the meanwhile Shahaji fled to the mountains of Kondana and Torna but was hunted out. He finally resorted to Mahuli fort which was difficult of access from outside. The Moghals soon arrived before the gates of the fort in August 1636 and stopping all ingress and egress, quickly invested it with Khan Zaman and Ranadulla Khan

leading the attack. At this time Kanhoji Jedhe, Ranadulla Khan's adviser, kept secret communication with Shahaji. When the provisions on the fort were exhausted, Shahaji's men began to starve and he was compelled to seek terms. In October he offered through Ranadulla Khan to hand over the fort and the puppet Nizamshahi prince on a promise that Shahaji should agree to serve Bijapur and that in the Nizamshahi territory south of the river Godavari, which had fallen to the sphere of Bijapur, a *jagir* should be given to Shahaji in payment of his services. This was reported to Bijapur and a written promise to that effect was received. The terms having been agreed to on both sides, Shahaji handed over the fort of Mahuli to the Moghals and was honourably received by Ranadulla Khan in a personal meeting. Thereupon Shahaji had a long cordial talk with Kanhoji Jedhe and his principal agent Dadaji Krishna Lohkare. Shahaji said to Kanhoji, "You are a powerful Deshmukh of Maval; and I have secured this territory as my *jagir*. So you must help me in establishing my control thereon." Kanhoji replied, "I will serve you with all my heart if you obtain Ranadulla Khan's permission to this transfer of service." This was agreed to and Shahaji left for Bijapur and entered the service of that state. Kanhoji Jedhe thereafter remained Shahaji's help-mate. Shahaji himself writes, "When I quitted Mahuli and hurried to Bijapur within the space of 20 days along with Ranadulla Khan, the Shah of Bijapur conferred on me a *jagir* of four lacs and commissioned me for the conquest of the Karnatak." Thus the war that had devastated the land for nearly nine years came to a close in October 1636. It is of interest to note that Shivaji became a personal witness of these momentous events which was to stand him in good stead in times to come. An excellent description of these latter events is given by Abdul Hamid Lahori in his *Badshahnama* which is reproduced below :—

Conquest of the Fort of Junir and Settlement of the Dakhin (Text, vol. I, part 2, p. 225).—When Khan-zaman returned from the Emperor to his army, he learnt that Sahu had declined entering into the service of Adil Khan, and refused to surrender Junir and the other fortresses to the Imperial officers. Adil Khan therefore sent his forces, under the command of Ranadaula, to co-operate with the Imperial army in the destruction of Sahu, and the reduction of his fortresses. Khan-zaman hastened to Junir, and invested the fortresses. Being satisfied with the arrangements for the siege, he determined to march against Sahu who was in the neighbourhood of Puna. When he reached the Khorandi, he was detained on its banks for a month by the heavy rains and the inundations. As soon as the waters abated, he crossed the river, and encamped on the banks of the Indan, near Lohgaon, and Sahu, who was seventeen

kos distant, then made into the mountains of Gondhana and Nurand. There were three large swollen rivers, the Indan, the Mol, and the Mota, between Khan-zaman and Sahu. The Khan therefore sent an officer to consult with Randaula. The opinion of that commander coincided with Khan-zaman's in favour of the pursuit, and the latter began his march. Sahu then fled with great haste by the pass of Kombha, and entered the Kokan..... Finding no support there, he returned by the pass of Kombha. The Imperial forces then entered the Kokan by the same pass, and Randaula also was closing up. Sahu then went off to Mahuli, and from thence to the fort of Muranjan, situated between the hills and the jungle. Khan-zaman followed. On discovering the approach of his pursuers, Sahu hastily sent off a portion of his baggage, and abandoned the rest. The pursuers having come up, put many of the rebels to the sword. Being still pursued, Sahu went again to Mahuli, hoping to get away by Trimbak and Tringalwari; but, fearing lest he should encounter the royal forces, he halted at Mahuli. He retained a party of his adherents who had long followed him, and the rest of his men he disbanded, and allowed them to go where they would. Then, with his son and a portion of his baggage, he went into the fort, resolved to stand a siege.

Khan-zaman got intelligence of this when he was twelve *kos* from Mahuli, and, notwithstanding the difficulties of the road, he reached the fort in one day. He immediately opened his trenches and made approaches. A few days after, Randaula came up, and joined in the siege..... When the place was hard pressed, Sahu wrote repeatedly to Khan-zaman, offering to surrender the fortress on condition of being received into the Imperial service. He was informed that if he wished to save his life, he must come to terms with Adil Khan, for such was the Emperor's command. He was also advised to be quick in doing so, if he wished to escape from the swords of the besiegers. So he was compelled to make his submission to Adil Khan, and he besought that a treaty might be made with him. After the arrival of the treaty, he made some absurd inadmissible demands, and withdrew from the agreement he had made. But the siege was pressed on, and the final attack drew near, when Sahu came out of the fort and met Randaula half way down the hill, and surrendered himself with the young Nizam. He agreed to enter the service of Adil Khan, and to surrender the fortress of Junir and the other forts to the Imperial generals. Accordingly the forts of Junir, Trimbak, Tringalwari, Haris, Judhan, Jund and Harsira were delivered over to Khan-zaman..... Randaula, under the orders of Adil Khan, placed the young Nizam in the hands of Khan-zaman, and then went to Bijapur, accompanied

by Sahu. (Khan-dauran takes possession of the forts of Kataljahr and Ashta and besieges and storms the fort of Nagpur.)

We are not here concerned with the later career of Shahaji in the context of the history of Thane district because Shahaji spent most of his later life in Karnatak. His first two sons Sambhaji and Ekoji went with him in Karnatak whereas his third son Shivaji lived in Maharashtra and was gradually building up his character in the independent surroundings of the western hills. He started his own organization, military, civil and revenue. He captured the fort of Sinhgad and practically asserted his independence in the Pune district. Adil Shah suspected Shahaji's complicity in the adventures of Shivaji and ordered the arrest of Shahaji who was then at Jinji (July 25, 1648). Shivaji applied to Murad Baksh, the Moghal governor of the Deccan, to intercede on his behalf. Adil Shah now threatened Shahaji with death if the fort of Sinhgad captured by Shivaji was not immediately restored. Shahaji wrote to his son to surrender the fort which Shivaji very reluctantly agreed and thus obtained the release of his father. This proved to be only a temporary check to Shivaji. Within a short period he undertook rapid expansion all around. He first made short work of the Mores of Javli in 1656 and then turned his attention towards the Moghal territory when in the summer of 1657 he made his first raid upon Moghal territory and plundered Junnar and Ahmadnagar. At the same time he carried on an offensive against the Adilshahi possessions of North Konkan by capturing Kalyan and Bhivandi. A high road from Junnar to Kalyan then carried the inland trade of the Deccan plateau to the parts of Kalyan and Vasai on the west coast, then centres of wealth and traffic. The possession of this territory was considered by Shivaji a highly advantageous adjunct to his *jagir* and one which could be easily defended from his base of Pune. The spies of Shivaji brought encouraging news about the state of defences in the North and South Konkan and Shivaji himself toured the Kalyan district in order to gauge the strength of its defences. At the time Shivaji was engaged in his attack on Javli in 1655 he received intimation that Adil Shah of Bijapur had called upon the governor of Kalyan, named Mulla Ahmad, to personally convey all his accumulated revenue to Bijapur. Shivaji devised a plan to make a sudden dash and carry away the treasure and at the same time fall upon Kalyan itself. The plan proved to be eminently successful and when the treasure was being looted and stored in the vaults of Rajgad, Shivaji's *Peshwa* Shyamraj Nilkanth and his cousin Dadaji Bapuji with a body of select troops surprised Kalyan itself which was denuded of all means of defence in the absence of the governor. Another attack was carried upon the neighbouring post of Bhiwandi by a party of Mavalas led by Sakho Krishna Lohkare. Shivaji planted strong garrisons

both at Kalyan and Bhiwandi and prepared to resist any reprisals by Bijapur. He then fortified the harbour of Kalyan and captured Mahuli and the other neighbouring forts to the south and north of Kalyan. Chaul, Tale, Ghosale, Rajmachi, Lohgad, Kangori, Tung-Tikona, all these were quickly seized one after another and strongly fortified, so that within a year's time Shivaji's small estate came to be doubled in extent and more than doubled in point of value and resources. Thus towards the end of October 1657 the whole province of north Konkan came into Shivaji's possession. He lost no time in establishing a strong and beneficent rule therein, so as to make the people feel the happy effects of the change in comparison with the previous misrule. Shivaji appointed Abaji Sondev as the first governor of Kalyan province. The Portuguese of Chaul felt serious alarm for their security on account of this new Maratha neighbour.

A widely current anecdote concerning this raid on Kalyan certainly created universal admiration for Shivaji's character and high morals. Mulla Ahmad, the Bijapuri Governor of Kalyan, had left his family behind, including his young and extremely handsome daughter-in-law who fell into Abaji Sondev's hands. Abaji, considering that she would be an acceptable present for his young master, sent her properly escorted to Pune. But Shivaji who respected every woman's honour as his own mother's, remarked to the lady on arrival, "Oh how nice would it have been if my mother were as fair as you are," and at once sent her to her home with due apologies for her capture. At the same time he conveyed to Abaji his stern sense of displeasure and circulated a severe warning to his officials against this wicked universal practice.

With the capture of Kalyan, Shivaji's sway came to be exercised over a triangular tract, the base of which was formed by the line of the sea-coast from Vasai to Rajapur and the two sides running from these points and meeting at Indapur. He reduced several forts in this region, among which was fort Prabalgad near Panvel, which was held by a Bijapuri captain named Kesari Sinh, who lost his life in the encounter.

It may be noted here that while carrying out his plan of conquest and expansion, Shivaji was careful to make his rule agreeable and beneficial to the people. He rigidly put down wanton plunder and exploitation. Writes his courtier Sabhasad : "People are happy when they get wealth, the country can be held through a line of forts, and in this way is a kingdom built up. The best line for the defence of the Deccan lands is the Sahyadri range, the inhabitants of which are expert in climbing hills through torrents of rain, through dense forests and difficult passes. From amongst these Shivaji picked up his help-mates, Mavlas from the Deshmukhs and the Deshpandes, and raised

them to positions of honour. Through their local connections, Shivaji negotiated the capture of forts, sometimes by offering bribes or other inducements, at other times by taking advantage of existing dissensions among the defenders. More often, clever tactics were resorted to, as for instance, introducing into the forts his own men with heavy bundles of hay on their heads carried for sale, in which arms were secretly concealed. In this way many forts were easily secured and placed in charge of trusted keepers. The *Maharaj* was extremely kind to his men and solicitous of their welfare. People flocked to him in thousands. Honest workers were amply rewarded. Those that proved dishonest and treacherous were carefully weeded out and punished. Thus a strong contrast between the methods of his government and those of the Muslims, became quickly apparent. Under the latter rich men were openly plundered; while Shivaji protected them from harm." Shivaji subsequently made numerous new appointments such as those of *Muzumdar*, *Surnis* or *Sachiv*, *Wakenavis* and persons of calibre were appointed to posts already in existence such as Netaji Palkar as *Surnobat* and Balaji Awaji as *Chitnis*. Once Shivaji's policies are fully grasped, his fair mindedness, his tolerance and his magnanimity became apparent. Though he was extremely tough in exacting full retribution when his aims were opposed, he was completely free from those vices of cruelty and vindictiveness which were typical characteristics of Aurangzeb and the *Sultans* of the existing *Sultanates* of the Deccan.

In 1656 and 1657 Aurangzeb, as the viceroy of the Deccan, attacked the kingdoms of Bijapur and Golconda, respectively and Shivaji offered to join the Moghals provided he was allowed to acquire the territories of the Konkan with all the forts situated therein. Aurangzeb agreed but in his campaigns Shivaji did not spare even the Moghal districts of Junnar and Ahmadnagar. Aurangzeb took prompt measures to counteract Shivaji who immediately sent his ambassador Krishnaji Bhaskar to Aurangzeb in order to explain the past deeds and urge his claim to the Bijapur districts of North Konkan. Aurangzeb at this moment had become extremely uneasy due to the receipt of the news of the dangerous illness of his father. He therefore hastened to the north issuing a strict warning to Bijapur to restrain Shivaji. Shivaji however kept himself busy consolidating his position in the north and south Konkan and Shivaji's growing prestige along the whole coast from Kalyan to Vengurla excited the jealousy of Rustam-i-Zaman (an Adilshahi nobleman who was assigned the *jagir* in lands south of the Vashisthi river) and of the other powers such as the Siddis of Janjira and the European traders especially the English with their factories on the coast. Shivaji succeeded in establishing friendly relations with the Siddis and the Sawant of Kudal whom Rustam-i-Zaman

attacked during the summer of 1658. During his campaigns in the Konkan region he visualized the necessity of a strong navy with suitable bases that would protect his newly-acquired territories and accordingly he constructed many a naval fort on the Konkan coast. Says Dr. Sen, "The coast lines of the Konkan broken by many creeks offered excellent shelter for ships and the rocky island near the coast presented invulnerable sites for naval strongholds. Once in secure possession of the Konkan, Shivaji early realized the necessity of a strong fighting fleet. The peace and prosperity of his *raj* demanded it. It was not his aim to secure the freedom of the seas against the world. He was quite content to share the sovereignty with his neighbours. On 16th August 1659 the Governor of Goa wrote to the King of Portugal, 'Shivaji has made himself master of the lands near Bassein and Chaul and built some ships of war at Bhiwandi, Kalyan, and Panvel.' This success of Shivaji brought on him the wrath of Bijapur court which dispatched its renowned general Afzal Khan. Afzal Khan left Bijapur with the avowed object of killing Shivaji or capturing him alive and he received the just retribution for the intentional treachery that he hoped would succeed in carrying out. The elimination of such a strong adversary once again proved the decline of the State of Bijapur. The encounter with Afzal Khan was followed by another one with the Bijapuri forces in the district of Kolhapur in which Shivaji worsted the Bijapur forces but came to an understanding with them to face the new challenge posed by Shaista Khan, the governor of the Deccan. Shaista had seized Pune and was spreading his tentacles all over the *Swarajya* territory especially Shivaji's power in North Konkan which supplied him with his principal resources in money and provisions. He therefore decided to capture Kalyan, equipped a large army and dispatched it under Kartlab Khan, a renowned general accompanied by one Rai Bagan, a wife of the old grandee Udaram of Washim in Akola district. The Khan left Pune in January 1661 and descended through the western *ghats* Umbar Khind at the foot of the fort of Lohogad which was extremely narrow and allowing hardly a couple of men to walk abreast. The Moghals descended the pass in a leisurely way to be entrapped by Shivaji's forces in the narrow defiles with the escape blocked from both the sides. A barrage of gun-fire was let loose against the entrapped Moghal army which had to find its way out of this calamity by paying a heavy ransom. After disposing of Kartlab Khan, Shivaji swooped down upon south Konkan bringing the recalcitrant local chiefs to book. The English factory at Rajapur did not also escape Shivaji's sword for their wanton interference in the siege of Panhala immediately after encounter with Afzal Khan. The defeat of Kartlab Khan did not deter Shaista Khan from his aggressive

postures against Shivaji, because immediately after the retreat of the Khan in February 1661, Shaista Khan sent another large army into north Konkan and wrested Kalyan and its adjoining districts up to Pen. The rainy season brought but a short respite and though the year that followed saw no large-scale war Shivaji felt completely non-plussed against the growing menace of the Moghals. He therefore decided upon some act of stern retribution against the person of Shaista Khan and all but did it by carrying out a daring night-raid on Shaista Khan at his residence in Pune on the night of 6th April 1663. This practically pushed Shaista Khan out of the *Swarajya* territory and resulted in his recall by the Emperor. The daring execution of Shivaji at once increased his prestige. This success did not lull Shivaji into inactivity but was followed by the sack of Surat on January 8-9, 1664. Leaving Nasik about 1st January 1664, Shivaji and his men marched through Mahuli, Kohaj, Jawhar and Ramnagar reaching Gavdevi about twenty-eight miles south of Surat on 5th January 1664. The sack of Surat fetched him about a crore of rupees which he carried straight to Rajgad. The Moghal forces sent to counter Shivaji arrived a week after Shivaji had left Surat. Aurangzeb now sent his son prince Muazzam as the Governor of the Deccan with Jaswant Singh as his lieutenant. They were however soon recalled by Aurangzeb who now sent a fresh expedition under Mirza Raja Jaysingh with Diler Khan to assist him. Shivaji realised the futility of opposing this huge Moghal army under so experienced a general and in order to avoid the futile destruction of the *Swarajya* territory he submitted to Mirza Raja Jaysingh resulting in the convention of Purandar on June 14, 1665. Shivaji under the treaty of Purandar ceded to the Moghals a number of forts and agreed to join the Moghal forces in their war against Bijapur. One of the terms of the treaty of Purandar stipulated a visit by Shivaji to Agra. On March 5, 1666 Shivaji started for Agra and was presented to the emperor on May 12th. The fiery nature of Shivaji evoked admiration among the courtiers but created a deep sense of distrust and hatred in the mind of Aurangzeb who imprisoned him. That Shivaji escaped miraculously speaks volumes for his superlative character and genius. On his return from Agra, Shivaji studiously avoided causing any irritation to the Moghals for some time. He directed his energies in consolidating his power in Konkan and effecting a revenue settlement there.

In the meanwhile Jaysingh was recalled and Prince Muazzam was appointed in his place. Just at this time Aurangzeb issued orders (April 9, 1669) to demolish all the schools and temples of the infidels and put down their religious teachings and practices. The temple of Vishveshvar at Benaras was demolished. Shivaji at once set about measures to avenge the wrong. He re-commenced his aggression upon

the Moghal territories in all directions and began vigorously to recover the important forts he had surrendered to Jaysingh. Sinhgad was re-captured by Tanaji Malusare on February 4, 1670. The Moghals were driven out of most of the south-east of Thane district. An attempt was made on Mahuli but its keeper Manohardas, a trusted officer of Aurangzeb, successfully defended it and for the time Shivaji had to give up the attempt. Kalyan and Bhivandi were easily taken by putting to death the Moghal Governor Uzbek Khan on March 3, 1670. Manohardas too failed to get timely reinforcement and himself delivered Mahuli to Shivaji on 16th June. Narnala was similarly lost in 1670. Shivaji thus completely swept away the Moghals from north Konkan and quickly removed all traces of his former submission to Aurangzeb of June 1665. Then followed the second sack of Surat and his sudden eruption into Berar, Baglan and Khandesh. Thus in a few years Shivaji not only recovered his former position but became a match for the best generals and administrators of the Moghal empire. After the conquest of Baglan, the *Peshwa* Moropant descended into north Konkan and conquered the territories of Jawhar and Ramnagar in June 1672, thus clearing Shivaji's direct way to Surat.

THE MARATHAS

The Marathas, 1670-1800: In 1670 the Portuguese defeated Shivaji at sea. But he came perilously near them on land taking several forts in the north-east of Thane and attacking Ghodbandar in Salsette. This advance of Shivaji's led the English to send him an envoy, and an alliance was agreed to, in which he promised to respect the English possessions. In 1672 the Sidi of Janjira, whose appointment as Moghal admiral had lately (1662) increased his importance, blockaded the Karanja river and made a fort at its mouth. In October of the same year (1672) a Sidi and Moghal squadron landed troops on the banks of the Nagothana river, laid the country waste, and carried off the people as slaves.

In February 1673 a Dutch fleet, under their Governor-General, appeared before Bombay and caused such alarm that the settlers fled to the Portuguese territories. But the Governor, Gerald Aungier, had given so much care to the fortifications and to strengthening the garrison and organizing the militia that, after hovering about the mouth of the harbour for some time the Dutch retired without attempting an attack. Another cause of difficulty in Bombay were the Sidis. Nearly every season between 1672 and 1680, sometimes with leave sometimes without leave, the Sidis came to Bombay to winter, that is, to pass the stormy south-west monsoon (May-October). In

1674 they scared the people from Sion fort in the north-east of the Island, but were attacked by English troops, and an agreement was made that not more than 300 of the Sidi's men were to remain on shore at one time and that none of them were to have any arms except a sword. These visits placed the English in an unpleasant dilemma. If they allowed the Sidis to land, they roused the suspicion and anger of Shivaji; if they forbade the Sidis landing, they displeased the Moghals.

Shivaji now had acquired the most glorious distinction of his life. He had humbled the might of the Moghal empire and inflicted several defeats upon the kingdoms of Bijapur and Golconda. Marathas were now masters of their legitimate home and it was now necessary that Shivaji should ceremoniously assume the title of *Chhatrapati* to establish his equality if not his superiority as the *Sultans* of Bijapur and Golconda, who had long lost their independent States and were now the vassals of the Moghal emperor. The preliminary rituals were carried out and in June 1674 Shivaji was crowned at Raygad fort near the town of Mahad in south Kulaba. An embassy sent by the Bombay Government found him friendly. He granted them leave to trade to any part of his territory on paying an import duty of two and a half per cent; he allowed them to establish factories at Rajapur and Dabhol in Ratnagiri, at Chaul in Kulaba, and at Kalyan in Thane; and he arranged to make good part of their losses from his sack of Rajapur in Ratnagiri. Immediately after coronation Shivaji tricked Bahadur Khan, the Moghal general, into peace proposals and looted his camp at Pedgaon. Shivaji's men also carried fire and sword through the Koli country of Jawhar and Ramnagar. In the same year Moro Pandit, a Maratha general, took up his quarters in Kalyan and called on the Portuguese to pay a *chauth* or twenty-five per cent tribute for Vasai. It was Pitamber Shenvi, a consummate diplomat, whom Shivaji had employed, supplied Shivaji with valuable details of the levy of the *chauth* cess which the Portuguese and some of the coastal powers were in the habit of paying and receiving. Shivaji adopted the system for his own purpose and developed it into a profitable instrument for the expansion of his *swarajya*.

State of the Country, 1675: Of the state of the district between 1673 and 1675, Fryer has left several interesting details. Under the great Gerald Aungier, the English were founding a marine, fortifying Bombay, bringing the settlement into order, and making the island an asylum for traders and craftsmen; but trade was small and the climate was deadly. In Salsette and Vasai the Portuguese were "effeminated in courage"; they kept their lands only because they lived among mean-spirited neighbours. Still Salsette was rich, with pleasant villages and country seats, the ground excellent either of

itself or by the care of its inhabitants, yielding fine cabbages, coleworts and radishes, garden fruit, "uncomparable" water-melons, and onions as sweet and well-tasted as an apple. Salsette supplied with provisions not only the adjoining islands but Goa also. Every half mile, along the Vasai creek from Thane to Vasai, were "delicate" country mansions. In Bandra the Jesuits lived in a great college with much splendour. Rural churches were scattered over the island, and Thane and Bandra were considerable towns. Vasai was a great city with six churches, four convents, and two colleges, and stately dwellings graced with covered balconies and large two-storeyed windows. The land was plain and fruitful in sugar-cane, rice and other grain. Much of it had lately been destroyed by the Arabs of Maskat, who, without resistance, often set fire to the Portuguese village, carried off their gentry into slavery, butchered their priests, and robbed their churches. Every year the Portuguese had a "lusty" squadron at sea, but no sooner was the squadron passed than the Arabs landed and worked mischief.

On his way to Junnar in Pune, in April 1675, Fryer found, on both sides of the Kalyan river, stately villages and dwellings of Portuguese nobles, till, on the right, about a mile from Kalyan, they yielded to Shivaji. Kalyan was destroyed by the fury of the Portuguese, afterwards of the Moghal, then of Shivaji, and now lately of the Moghal whose flames were hardly extinguished. By these incursions the town was so ruined that the houses were mean kennels and the people beggars. Titvala, seven miles east, across rocky barren and parched ways, was, like Kalyan, reeking in ashes. The Moghals laid waste all in their road, both villages, fodder and corn, carrying off cattle and women and children for slaves, and burning the woods so that runaways might have no shelter. Then the way led across some better country, with arable grounds, heaths, and forests, some of them on fire for two or three miles together. In the poor village of Murbad where Fryer next stopped, the people had no provisions. Though several villages were in sight and the people greedy enough to take money, with diligent search and much ado, only one hen was found. All the land was ploughed, but Shivaji coming, reaped the harvest, leaving the tillers hardly enough to keep body and soul together. From Murbad the path led over hilly, but none of the worst ways, across burnt grass-lands; then over a fine meadow checkered with brooks and thriving villages, to the foot of the hills, to Dehir (Dhasai), a garrison town of Shivaji's where he stabled his choicest horses. Here all were in arms, not suffering their women to stir out of the town. The town was crowded with people miserably poor. The garrison was a ragged regiment, their weapons more a cause of laughter than of terror.

On his return from Junnar (May 24th), Fryer came by the Nana pass through Murbad and Barfta, perhaps Barvi about three miles north-east of Kalyan. The misery of the people seems to have struck him even more than on his way in land. His bearers could buy nothing, the people being "harried out of their wits", mis-trusting their own country-men as well as strangers, living as it were wildly, betaking themselves to the thickets and wildernesses among the hills upon the approach of any new face. At Barfta the "Coombies or woodmen" who lived in beehive-like huts lined with broad teak-leaves, were not strong enough to aid their herds against the devouring jaws of wild beasts. Fires had to be kept up, lest the horse might "loose one of his quarters or the oxen serve the wild beasts for a supper". A strict watch was added, whose mutual answering in a high tone were defended by the roaring of tigers, the cries of jackals, and the yellings of *baloos* or overgrown wolves. The poor Coombies were all so harassed that they dared not till the ground, never expecting to reap what they sowed. Nor did they remain in their houses, but sought lurking places in deserts and caverns. So obvious were the hardships that Fryer's bearers often reflected on their own happiness under English rule.

During these years (1673-1677) the relations of the English and Portuguese were still unfriendly. Enraged at the refusal of the Deputy Governor to give up a Malabar ship that had sought refuge in Bombay, the Portuguese General Manuel de Saldanha raised a force of 1,200 men and marched against Bombay. But, on finding that this display of strength had no effect, he beat a retreat. Shortly after some Portuguese priests were found in Bombay, stirring up the Portuguese residents against the English, and an order was issued requiring "all vagabond Padres" to leave the island. The Portuguese authorities continued to starve Bombay, forbidding the export of rice from Bandra and placing an almost prohibitive duty on fruits, vegetables and fowls. They tried to levy a ten per cent duty on all supplies passing Thane and Karanja on their way to Bombay, but this the English steadily resisted.

Shivaji's conquest, 1675-1680: In 1675 Shivaji drove the Moghals from their Thane possessions, and, passing west along the Tansa began to fortify opposite the Portuguese town of Saivan (Sibon). This produced some "slender hostilities", but the work went on. In the following year Shivaji sent a force to Parnera in the south of Surat, and repaired and garrisoned the fort. In 1678 Shivaji tried to burn the Musalman boats in Bombay harbour. Failing in his first attempt he went back to Kalyan and tried to cross to Thane, but was stopped by Portuguese boats. In the same year the Nagothana river was the scene of a struggle between some English troops from Bombay and Shivaji's

general. In October 1679, to guard the southern shores of Bombay harbour against the Sidi's raids, Shivaji took possession of the small rocky island of Khanderi or Kenery at the mouth of the harbour. This island was claimed both by the Portuguese and by the English, but it had been neglected as it was supposed to have no fresh water. On its capture by Shivaji the English and Sidis attempted to turn out the Marathas. The English sent an aged captain, or according to another account a drunk lieutenant, in a small vessel to find out what the Marathas meant by landing on the island. The officer was induced to land, and he and his crew were cut off. The *Revenge*, a pink, and seven native craft were ordered to lie at anchor and block all approach to the rock. On this, the Marathas attacked the English fleet, took one grab, and put to flight all except the *Revenge*. The little man of war was commanded by Captain Minchin, and the gallant Captain Keigwin was with him as Commodore. These officers allowed the Marathas to board, and then, sweeping the decks with their great guns, destroyed some hundreds, sunk four of the Maratha vessels, and put the rest to flight. In spite of this success the Marathas continued to hold Khanderi. Soon after (9th January 1680), as a country movement, Sidi Kasim entrenched himself on Underi or Henery rock, about two miles to the east of Khanderi, and the Marathas in vain tried to drive him out. The possession of these islands by enemies, or, at best, by doubtful friends, imperilled Bombay. The Deputy Governor prayed the Court for leave to expel them. In reply he was censured for not having called out the Company's ships and prevented the capture. But, owing to want of funds and the depressed state of trade, he was ordered to make no attempt to recover the islands, and was advised to avoid interference in all wars between Indian powers. An agreement was accordingly made acquiescing in Shivaji's possession of Khanderi.

On the death of Shivaji on the 3rd of April 1680, Sambhaji, his son and successor, by supporting the Emperor's rebel son Sultan Akbar, brought on himself the anger of Aurangzeb. In the fights that followed between the Sidis and the Marathas the shores of the Bombay harbour were often ravaged. The English in Bombay were in constant alarm as, from ill-advised reductions, they had only one armed ship and less than a hundred Europeans in the garrison. In 1682 a Moghal army came from Junnar to Kalyan. The Portuguese had before this lost their hold of Shabaz or Belapur near Panvel, as the Sidi is mentioned as building a fort at Belapur to guard it against the Marathas. After the rains the Marathas and Sidis again fought in Bombay harbour, and Sambhaji is mentioned as preparing to fortify the island of Elephanta and as ordering his admiral Daulat Khan to invade Bombay, where the militia were embodied and 3,000 of

Aurangzeb's troops were landed at Mazgaon to help in the defence. In 1683 the Moghals ravaged Kalyan, and the Portuguese fought with the Marathas. Sambhaji who was repulsed before Chaul, seized the island of Karanja and plundered some places north of Vasai. In consequence of the capture of Bantam by the Dutch, Bombay was made the head English station in the East Indies, forty European recruits were sent, and 200 Rajputs ordered to be enrolled. At the close of the year, Captain Keigwin, the commandant of the Bombay garrison, enraged by continued reductions in pay and privileges, revolted from the Company, seized and confined the Deputy Governor, and, with the concurrence of the garrison and the people of the island, declared that the island was under the King's protection. Mr. Child, the President, came from Surat to Bombay, but, failing to arouse any feeling in favour of the Company, returned to Surat. The revolt continued till October 1684 when Sir Thomas Grantham, a King's officer and Vice-Admiral of the Indian fleet, arrived from England, and coming to Bombay in November 1684, landed without attendants, and persuaded Keigwin to give up the island and retire to England. Keigwin had ruled with honesty and success. He made a favourable treaty with Sambhaji and repressed the Sidi, forbidding him to come to Mazgaon except for water. He claimed, perhaps with justice, that his vigorous management had saved the island from falling into the hands either of the Marathas or of the Moghals. In 1684 Kalyan was again ravaged by the Moghals. The war between the Portuguese and the Marathas was renewed, the Portuguese re-taking Karanja, Santa Cruz opposite Kalyan, and the great hill-fort of Asheri. Sambhaji in return ravaged the Portuguese territory and invested Vasai.

Sir John Child, 1687-1690 : In 1687, under the influence of Sir Josiah Child, the Court of Directors, disgusted with the uncertain nature of their trading privileges in Surat and in Bengal, full of admiration for the Dutch system of independent and self-supporting centres of trade, and encouraged by the support they received from the Crown, determined to shake off their submission to the Moghal, to raise their leading Indian factories to be Regencies, to strengthen them so that they could not be taken by native attack, and to use their power at sea as a means of preventing Aurangzeb from interfering with their trade. With this object independent settlements were to be established at Bombay, Madras and Chittagong. Bombay was to be the chief seat of power, as strong as art and money could make it, and Salsette was to be seized and garrisoned. Sir John Child, the brother of Sir Josiah Child, was appointed Captain General and Admiral of the Company's forces by sea and land. He was directed to leave Surat and establish his headquarters in Bombay, to make an alliance with the Marathas, and to seize as many Moghal ships as he could

until the independence of the Company's stations was acknowledged. With this object a strong force both in ships and men was sent to Chittagong and to Bombay. These schemes and preparations failed. In Bengal, hostilities were begun before the whole force arrived; they were prosecuted with little success, and agreements were hurriedly patched up on the old basis of dependence on the Moghal. In the west matters went still worse. Sir John Child issued orders for the capture of Moghal ships while Mr. Harris and the other factors were still at Surat. With these hostages there was no chance that the fear of the destruction of the Moghal sea-trade would induce Aurangzeb to admit the independence of the English settlements. Aurangzeb at this time, besides his successes against Sambhaji, had reduced both Bijapur in 1686 and Golkonda in 1687. Sambhaji was also captured two years later on February 1, 1689 and executed on March 11, 1689. The attempt to wring concessions at this time from Aurangzeb was hopeless and had to be given up, and envoys were sent to Bijapur to negotiate a peace and re-gain the former privileges. In the midst of these disappointments and failures Sir John Child died in Bombay on the 4th of February 1690.

Bombay, 1690: On the 27th of February 1690 Aurangzeb passed an order granting the English leave to trade. The terms of this order were humiliating. The English had to admit their fault, crave pardon, pay a heavy fine, promise that they would go back to their old position of simple traders, and dismiss Child "the origin of all the evil". Before this pardon was granted (14th February 1689) the Sidi fleet and army had invaded Bombay, gained possession of Mahim, Mazgaon and Sion, and held the Governor and the garrison as if besieged in the town and castle. The treaty with the English contained an order to the Sidi to withdraw from Bombay. But the English did not re-gain possession of Mazgaon, Mahim and Sion till the 22nd of June 1690. So weak were the defences of the island and so powerless was the garrison, reduced by pestilence to thirty-five English, that, in Mr. Harris, opinion, if it had not been for the jealousy of Mukhtyar Khan the Moghal general, the Sidi might have conquered the island. This foolhardy and ill-managed attempt of the Child to raise the Company to the position of an independent power is said to have cost the Company Rs. 41,60,000. During the decline of Maratha vigour, that followed the capture and death of Sambhaji, the Moghals overran most of the North Konkan. Several Maratha forts such as Salher, Trimbak, Raygad, Rohida, Torna and Mahuli which had formed the scenes of the early exploits of Shivaji were captured by them. Matabar Khan, a shrewd and circumspect general with great organizing capacity, was appointed by the emperor to hold and administer the important region of North Konkan which contained several forts of

strategic importance. For nearly fifteen years Matabar Khan held this part with valour and skill and supplied valuable resources to the Moghal captains from his base at Kalyan where many buildings still preserve his memory. In 1689 they made several inroads into Portuguese territory, plundering small towns and threatening Vasai. In 1690 a band of ruffians, under a leader named Kakaji, came plundering close to Vasai, and threatened Salsette. In 1694 Aurangzeb declared war on the Portuguese, and his troops ravaged the country so cruelly that the people had to take shelter within the walls of Vasai and Daman. Fortunately for the Portuguese Aurangzeb was in want of cannon to use against the Marathas, and, on the promise of a supply made a favourable treaty with the Portuguese. But there seemed neither rest nor security for the rich Portuguese. No sooner were matters settled with Aurangzeb than bands of Maskat Arabs landed in Salsette, burnt the Portuguese villages and churches, killed their priests and carried off 1,400 prisoners into slavery. Next year the Portuguese were somewhat encouraged by, what was an unusual event, a sea victory over the Marathas.

An excellent account of English at Bombay is given by Khafi Khan which is reproduced below (Text, vol. ii, p. 421) :—The royal ship called the *Gani-i-sawai*, than which there was no larger in the port of Surat, used to sail every year for the House of God (at Mecca). It was now bringing back to Surat fifty-two *lacs* of rupees in silver and gold, the produce of the sale of Indian goods at Mocha and Jedda. The captain of this ship was Ibrahim Khan. There were eighty guns and four hundred muskets on board, besides other implements of war. It had come within eight or nine days of Surat, when an English ship came in sight, of much smaller size, and not having a third or fourth part of the armament of the *Ganji-i-sawai*. When it came within gun-shot, a gun was fired at it from the royal ship. By ill-luck, the gun burst, and three or four men were killed by its fragments. About the same time, a shot from the enemy struck and damaged the main mast on which the safety of the vessel depends. The Englishmen perceived this, and being encouraged by it, bore down to attack, and drawing their swords, jumped on board of their opponent. The Christians are not bold in the use of the sword, and there were so many weapons on board the royal vessel that if the captain had made any resistance, they might have been defeated. But as soon as the English began to board, Ibrahim Khan ran down into the hold. There were some Turkî girls whom he had bought in Mocha as concubines for himself. He put turbans on their heads and swords into their hands, and incited them to fight. These fell into the hands of the enemy who soon became perfect masters of the ship. They transferred the treasure and many prisoners to their own ship. When they had laden their ship,

they brought the royal ship to shore near one of their settlements, and busied themselves for a week searching for plunder, stripping the men, and dishonouring the women, both old and young. They then left the ship, carrying off the men. Several honourable women, when they found an opportunity, threw themselves into the sea to preserve their chastity and some others killed themselves with knives and daggers.

This loss was reported to Aurangzeb, and the news-writers of the port of Surat sent some rupees which the English had coined at Bombay, with a superscription containing the name of their impure King. Aurangzeb then ordered that the English factors who were residing at Surat for commerce should be seized. Orders were also given to Itimad Khan, superintendent of the port of Surat, and Sidi Yakut Khan, to make preparations for besieging the fort of Bombay. The evils arising from the English occupation of Bombay were of long standing. The English were not at all alarmed at the threatenings. They knew that Sidi Yakut was offended at some slights he had received. But they were more active than usual in building bastions and walls, and in blocking up the roads so that in the end they made the place quite impregnable. Itimad Khan saw all these preparations, and came to the conclusion that there was no remedy, and that a struggle with the English would result only in a heavy loss to the customs revenue. He made no serious preparations for carrying the royal order into execution, and was not willing that one rupee should be lost to the revenue. To save appearances, he kept the English factors in confinement, but privately he endeavoured to effect an arrangement. After the confinement of their factors, the English, by way of reprisal, seized upon every Imperial officer, wherever they found one, on sea or on shore, and kept them all in confinement. So matters went on for a long time.

During these troubles I, the writer of this work, had the misfortune of seeing the English of Bombay, when I was acting as agent for 'Abdu-r Razzak Khan at the port of Surat. I had purchased goods to the value of nearly two *lacs* of rupees, and had to convey them from Surat to 'Abdu-r Razzak, the *faujdar* of Rahiri. My route was along the sea-shore through the possessions of the Portuguese and English. On arriving near Bombay, but while I was yet in the Portuguese territory, in consequence of a letter from 'Abdu-r Razzak, I waited ten or twelve days for the escort of Sidi Yakut Khan. 'Abdu-r Razzak had been on friendly terms with an Englishman in his old Haidarabad days, and he had now written to him about giving assistance to the convoy. The Englishman sent out the brother of his *diwan*, very kindly inviting me to visit him. The Portuguese captain and my companions were averse to my going there with such valuable

property. I, however, put my trust in God, and went to the Englishman. I told the *diwan's* brother that if the conversation turned upon the capture of the ship, I might have to say unpleasant things, for I would speak the truth. The Englishman's *vakil* advised me to say freely what I deemed right, and to speak nothing but the truth.

When I entered the fortress, I observed that from the gate there was on each side of the road a line of youths, of twelve or fourteen years of age, well-dressed, and having excellent muskets on their shoulders. Every step I advanced, young men with sprouting beards, handsome and well-clothed, with fine muskets in their hands, were visible on every side. As I went onwards, I found Englishmen standing, with long beards, of similar age, and with the same accoutrements and dress. After that I saw musketeers (*bark-andaz*), young men well-dressed and arranged, drawn up in ranks. Further on, I saw Englishmen with white beards, clothed in brocade, with muskets on their shoulders, drawn up in two ranks, and in perfect array. Next I saw some English children, handsome, and wearing pearls on the borders of their hats. In the same way, on both sides, as far as the door of the house where he abode, I found drawn up in ranks on both sides nearly seven thousand musketeers, dressed and accoutred as for a review.

I then went straight up to the place where he was seated on a chair. He wished me Good-day, his usual form of salutation; then he rose from his chair, embraced me, and signed for me to sit down on a chair in front of him. After a few kind inquiries our discourse turned upon different things, pleasant and unpleasant, bitter and sweet; but all he said was in a kind and friendly spirit towards 'Abdu-r Razzak. He inquired why his factors had been placed in confinement. Knowing that God and the Prophet of God would protect me, I answered, "Although you do not acknowledge that shameful action, worthy of the reprobation of all sensible men, which was perpetrated by your wicked men, this question you have put to me is as if a wise man should ask where the sun is when all the world is filled with its rays." He replied, "Those who have an ill-feeling against me cast upon me the blame for the fault of others. How do you know that this deed was the work of my men? By what satisfactory proof will you establish this?" I replied, "In that ship I had a number of wealthy acquaintances, and two or three poor ones, destitute of all worldly wealth. I heard from them that when the ship was plundered, and they were taken prisoners, some men, in the dress and with the looks of Englishmen, and on whose hands and bodies there were marks, wounds and scars, said in their own language, 'We got these scars at the time of the siege of Sidi Yakut, but today the scars have been removed from our hearts.' A person who was with

them knew Hindi and Persian, and he translated 'their words to my friends."

On hearing this he laughed loudly and said, "It is true they may have said so. They are a party of Englishmen, who, having received wounds in the siege of Yakut Khan, were taken prisoners by him. Some of them parted from me, joined the *Habshi*, and became Musalmans. They stayed with Yakut Khan some time, and then ran away from him. But they had not the face to come back to me. Now they have gone and taken part with the *dingmars*, or *sakanas*, who lay violent hands on ships upon the sea ; and with them they are serving as pirates. Your sovereign's officers do not understand how they are acting, but cast the blame upon me."

I smiling replied, "What I have heard about your readiness of reply and your wisdom, I have (now) seen. All praise to your ability for giving off-hand, and without consideration, such an exculpatory and sensible answer ! But you must recall to mind that the hereditary Kings of Bijapur and Haiderabad and the good-for-nothing Sambha have not escaped the hands of King Aurangzeb. Is the island of Bombay a sure refuge ? " I added, "What a manifest declaration of rebellion you have shown in coining rupees ! "

He replied, "We have to send every year a large sum of money, the profits of our commerce, to our country, and the coins of the King of Hindustan are taken at a loss. Besides, the coins of Hindustan are of short weight, and much debased ; and in this island, in the course of buying and selling them, great disputes arise. Consequently we have placed our own names on the coins, and have made them current in our own jurisdiction." A good deal more conversation passed between us, and part of it seemed to vex him ; but he showed himself throughout very thoughtful of 'Abdu-r Razzak Khan, and mindful of his obligation to protect him. When the interview was over, he proffered me entertainment in their fashion ; but as I had resolved from the first that I would not depart from the usual course in the present interview, I accepted only *atr* and *pan*, and was glad to escape.

The total revenue of Bombay, which is chiefly derived from betelnuts and cocoa-nuts, does not reach to two or three *lacs* of rupees. The profits of the commerce of these misbelievers, according to report, does not exceed twenty *lacs* of rupees. The balance of the money required for the maintenance of the English settlement is obtained by plundering the ships voyaging to the House of God, of which they take one or two every year. When the ships are proceeding to the ports of Mocha and Jedda laden with the goods of Hindustan, they do not interfere with them ; but when they return bringing gold and silver and *Ibrahimi* and *rial*, their spies have found out which ship bears the richest burden, and they attack it.

The Marathas also possess the newly-built forts of Khanderi, Kolaba, Kasa and Katora, in the sea opposite the island fortress belonging to the *Habshis*. Their war-ships cruise about these forts, and attack vessels whenever they get the opportunity. The *sakanas* also, who are sometimes called *bawaril*, a lawless set of men belonging to Surat, in the province of Ahmadabad, are notorious for their piracies, and they attack from time to time the small ships which come from Bandar, Abbasi and Maskat. They do not venture to attack the large ships which carry the pilgrims. The reprobate English act in the same way as the *sakanas*.

Bombay continued very depressed. In 1694 trade was in a miserable state; the revenue had fallen from Rs. 52,080 to Rs. 14,160, the cocoa-palms were almost totally neglected, and there were only a hundred Europeans in the garrison. In 1696 want of funds required a reduction of sixty Christians and 340 Gentoos, and, in 1697, there were only twenty-seven Europeans soldiers. In 1701 Mahim and other stations had been strengthened, but the garrison was weak. The Marathas, Moors, Arabs and Portuguese were ready to attack Bombay, and if reinforcements were not sent the island must be lost. In 1702 the safety of the island was threatened by the Portuguese stopping the supply of provisions for the garrison, and giving secret help to the Marathas. Added to this the plague broke out in the island, carried off some hundreds of the natives, and reduced the Europeans to the small number of seventy-six men. The plague was followed by a storm which destroyed the produce of the island and wrecked the greater part of the shipping. In 1705 matters were little better. The garrison was very weak, the Hindu companies were disbanded for neglect of duty, the Surat trade was at a stand, and the trade with the Malabar coast was harassed by Kanhoji Angre, the famous naval commander of the Marathas. In 1708 the king of Persia proposed to send an envoy to arrange with the English a joint attack on the Marathas and the Arabs who were running the sea all over the western coast. But the Governor was forced to decline; Bombay was in no state to receive an envoy either by the appearance of its strength, or by having disposable shipping for the service solicited. The "Unfortunate Isle of the East" was plague-stricken, empty, and ruined. Of 800 Europeans only fifty were left, six civilians, six commissioned officers, and not quite forty English soldiers. There were only one horse fit to ride and one pair of oxen able to draw a coach. Bombay that had been one of the pleasantest places in India was brought to be one of the most dismal deserts.

Portuguese Thane, 1690-1700: Between Aurangzeb's treaty with the Portuguese in 1694 and his death in 1707, with the coast strip under the Portuguese and Kalyan under the Moghals, Thane seems

to have been freer from war and plunder than it had been for years. Of the parts under the Moghals no details have been traced. But, in spite of all they had suffered, the Portuguese lands were richly tilled, and the people, except the lowest classes, were well-to-do. According to the Musalman historian Khafi Khan, Vasai and Daman were strong and the villages round them were flourishing, yielding a very large revenue. The Portuguese tilled the skirts of the hills and grew the best crops, sugarcane, pine apples and rice, with gardens of cocoa-palms and vast numbers of betel-vines. Unlike the English, they attacked no ships except ships that refused their passes, or Arab and Maskat vessels with which they were always at war. The greatest act of Portuguese tyranny was that they taught and brought up as Christians the children of any of their Musalman or Hindu subjects, who died leaving no grown-up son. Otherwise they were worthy of praise. They built villages and in all matters acted with much kindness to the people, and did not vex them with oppressive taxes. They set apart a quarter for the Musalmans and appointed a *Kazi* to settle all matters of taxes and marriages. Only the call to prayer was not allowed. A poor traveller might pass through their territory and meet with no trouble, except that he would not be able to say his prayers at his ease. Their places of worship were very conspicuous with burning tapers of camphor and figures of the Lord Jesus and Mary, very gaudy in wood, wax and paint. They were strict in stopping tobacco, and a traveller might not carry more than for his own use. When they married, the girl was given as the dowry. They left the management of all affairs in the house and out of the house to their wives. They had only one wife and concubines were not allowed.

In the beginning of 1695 the Italian traveller Gemelli Careri spent some time at Daman and Vasai, and in Salsette. Daman was a fairly pretty town in the Italian style. It had three broad streets and four cross streets, lined with regular rows of one-storied tiled dwellings, with oyster-shell windows instead of glass, and each house with its garden of fruit-trees. There were several good monasteries and four modern bastions, well-built though ill-supplied with cannon. There was a good garrison, a captain, and a revenue factor. The people were Portuguese, half-castes or *mestizos*, Musalmans and Hindus. Most of the Hindus lived in the old Daman on the right bank of the river, a place of ill-planned streets and cottages, with mud-walls and roofs thatched with palm-leaves. The Portuguese lived in great style, with slaves and palanquins. Out-of-doors they rode in coaches drawn by oxen. The food was not good. The beef and pork were ill-tasted, they seldom killed sheep, and everybody could not go to the price of fowls. Their bread was excellent, and native fruits and many European herbs were plentiful. Under their coats the men wore an odd sort of breeches

called *candales*, which when tied left something like the tops of boots on the leg. Others wore a short doublet, and under the doublet wide silk breeches, and some let their breeches hang to their ankles serving as hose.

Tarapur was well inhabited with monasteries of Dominicans and Recolets or Franciscans. At Vasai the fortifications were not finished. The people of fashion wore silk and thin muslins with long breeches to the heels, without stockings, and with sandals instead of shoes. A bride was richly dressed in the French fashion. For fifteen miles between Vasai and Cassabo, that is Agashi, was nothing but delightful gardens planted with several sorts of country fruit-trees, as palms, figs, mangoes and others with abundance of sugar-canes. The gardens were always green and fruitful, watered with engines. The gentry, tempted by the cool pleasant lanes, had all pleasure-houses at Agashi, where they went in the hottest weather. About this time, besides the risk of slaughter by Pendhari free-booters and Maskat pirates, the people of Vasai were haunted by another form of sudden death. A plague, a pestilential disease called *carazzo*, exactly like a bubo, had for some years infested the north coast; cities were emptied in a few hours; Surat, Daman, Vasai and Thane had all suffered.

Salsette, the best part of which belonged to the Jesuits, was very rich yielding abundance of sugar-cane, rice and fruit. There were several villages of poor wretched Gentiles, Moors and Christians living in wattle and daub houses covered with straw or palm-leaves. The peasants were worse than vassals to the lords of the villages. They were bound to till the land or to farm as much as might put them in a condition to pay the landlord. They fled like slaves from one village to another, and their landlords brought them back by force. Those who held from large proprietors paid their rent in grain, sometimes with the addition of personal service. Those who held direct from the state paid the Government factor or treasurer a monthly imposition according to what they were worth. The chief places in the island were Bandra, Versova, and Thane. Thane stood in open country excellent good for India. It had three monasteries and a famous manufacture of calicoes.

Careri makes no mention of the loss and havoc caused by recent raids and disturbances. But he tells of fierce fights at sea with the Maskat pirates; of the Malabars, pirates of several nations, Moors, Hindus, Jews and Christians, who with a great number of boats full of men fell on all they met; and of Shivaji, the mortal enemy of the Portuguese, so strong that he could fight both the Moghals and the Portuguese. He brought into the field fifty thousand horse and as many or more foot, much better soldiers than the Moghals, for they

lived a whole day on a piece of dry bread while the Moghals marched at their ease, carrying their women and abundance of provision and tents, so that they seemed a moving city. Shivaji's subjects were robbers by sea and by land. It was dangerous at any time to sail along their coast, and impossible without a large convoy. When a ship passed their forts, the Shivajis ran out in small well-manned boats and robbed friend and foe. This was the pay their king allowed them.

Trade, 1660-1710: During the first fifty years of the British possession of Bombay the trade of the Thane coast shows a gradual falling off in all the ports except in Bombay. In Bombay between 1664 and 1684 "trade flourished and increased wonderfully". This was the turning point in the modern history of the trade of the Thane coast, when, as of old, it began to draw to itself the chief foreign commerce of Western India. Between 1684 and 1688 Bombay was the centre of English commerce with Western India. Then came the collapse and the years of deadly depression and of strife between the London and the English Companies, ending in 1702 in the formation of the New United Company.

In the beginning of the eighteenth century Hamilton enters on his map of the Thane coast, Daman, Cape St. John, Tarapur, Vasai, Bombay and Chaul. Besides these he mentions, between Daman and Vasai, Dahanu, Tarapur, Mahim Kellem or Kelva Mahim and the island of Vaccas or Agashi, and between Vasai and Bombay, Versova, Bandra and Mahim. Of these ports Daman, in former times a place of good trade, was reduced to poverty; Dahanu, Tarapur, Kelva-Mahim and the island of Vaccas were "of small account in the table of trade;" Vasai was a place of small trade, its riches dead and buried in the churches; Versova was a small town driving a small trade in dry fish; Bandra was most conspicuous but it had no trade as the mouth of the river was postered with rocks; Bombay, as noticed above, had fallen very low. Trade was so bad that, according to Hamilton, in 1696 the Governor Sir John Gayer preferred a prison in Surat where he could employ his money, to Government house in Bombay where there was no chance of trade. Thane, Kalyan and Panvel are passed over in silence. Chaul, once a noted place of trade, was miserably poor.

No details have been traced of the trade of Bombay at this period. Apparently vessels from Bombay occasionally traced to England, and to almost all the known Asiatic and east African ports. The following summary serves to show the character of the trade in which, a few years before, Bombay had played a considerable part, and in which, after a few years of almost complete effacement, it again acquired a large and growing share.

Of Indian ports north of the Thane coast, there were in Sindh, Tatta with a very large and rich trade; Cutchnagar apparently Cutchigad six miles north of Dwarka; Mangrol, and Pormain with considerable traffic; Diu, one of the best cities in India, but three-fourths empty; Gogha, a pretty large town with some trade; Cambay, a large city, a place of good trade; Broach, famous for its fine cloth and for its cotton "the best in the world"; Surat, a great city with a very considerable trade "in spite of convulsions"; Navsari, with a good manufacture of coarse and fine cloth; and Gandevi with excellent teak exported and used in building houses and ships.

South of Chaul to Goa the coast towns were small and poor, empty and tradeless, the coast harassed by pirates. Even Goa had little trade except in palm-juice arrack, which was bought yearly in great quantities by the English for punch. Between Goa and Cape Comorin, Karwar, Honavar and Bhatkal had a good trade, Mangalore was the greatest mart in Kanara, and Kannanur, Kalikat and Kochin were all centres of considerable commerce. On the east coast Fort St. David was one of the most prosperous places; Madras was a well-peopled colony, and Masulipatam, Calcutta and Hugli were great centres of trade.

In the Persian Gulf, on the east coast, were Gombroon with English and Dutch factories and a good trade, Cong with a small trade, Bushire with a pretty good trade, and Bassora and Bagdad great cities much depressed by a pestilence and by the conquest of the Turks. On the west of the gulf, Maskat was strongly fortified and well supplied with Merchandise. On the east coast of Arabia were Kuria-Muria, Doffar and Kassin, inhospitable ports with a dislike of strangers and only a small trade. Aden was a place of little commerce. Its trade had passed to Mocha, the port of the great inland city of Sunan, with English and Dutch factories. Of the Red Sea marts, Jidda on the east coast and Massua on the west coast were the most important. On the east Africa, Magadoxo, Patta, Mombas and Mozambique had little trade with India, partly because of the English pirates of Mozambique and partly because the coast as far south as Mombassa had lately (1692-1698) passed from the Portuguese to the Imam of Maskat. South of Mombassa there was little trade except some Portuguese traffic with Sena and some British dealing with Natal. Passing east, by the south of India, the rich trade of Ceylon was almost entirely in the hands of the Dutch and the English. On the east coast of the Bay of Bengal the chief places of trade were Chittagong, Arrakan, Syrian the only open port in Pegu, whose glory was laid in the dust by late wars with Siam and by its conquest by Burmah. Further east were Merji and Tenasserim, Malacca under the Dutch apparently with much lessened trade, Achin in Sumatra a rich and important mart for

Indian goods, and Bencolin also in Sumatra with an English colony. The rich spice trade of Java and Borneo was in the hands of the Dutch. Siam and Cambodia were rich and were anxious to trade with the English. Cochin-China had little trade, but Tonquin was powerful and commercial. In China, "the richest and best governed empire in the world", the chief places where the English traded were Canton, Amoy and Souchow. Amoy at the beginning of the eighteenth century was a great centre of English trade, but it was closed some years later by order of the Emperor. Japan in 1655 had risen on the Portuguese and killed the Christians, and the Dutch had taken advantage of Charles II's marriage with the Infanta of Portugal to persuade the Japanese to forbid the English to trade.

The trade between Bombay and other Thane ports was chiefly in grain, vegetables, fruit, fowls, and mutton for the Bombay market, and in teak from Vasai for house and ship building. This local trade was much hampered by the demands of the Portuguese and by taxes in Bombay. The barrier of customs-houses—English, Portuguese and Marathi—and the disturbed state of the Deccan prevented any considerable inland trade. Gujarat chiefly exported corn, cloth and cotton, and the Kathiawar ports yielded cotton, corn, cloth, pulse and butter, and took pepper, sugar and betel-nut. From the South Konkan ports almost the only exports were cattle from Janjira and arrack from Goa. The Kanara ports yielded teak and poon timber, and the Malabar coast rice, sandal-wood, pepper, betel-nuts and plenty of iron and steel. The east Madras ports yielded diamonds, the best tobacco in India, and beautiful chintz, and Calcutta and Hugli yielded saltpetre, piece-goods, silk and opium.

Outside of India the ports in the Persian Gulf took Indian cloth and timber, and European broadcloth and hardware; they exported dates, rose-water, horses and dry fish. The east Arab ports took coarse calicoes, and exported myrrh, olibanum, frankincense, pearls, horses and red resin. Aden exported horses, finely-shaped and mettlesome but very dear, £ 50 or £ 60 being thought a small price for one. Mokha exported coffee and ostrich-feathers. The only dealing with the East African ports was a little Portuguese traffic in gold with Sena, and a British traffic in ivory with Natal. Ceylon was famous for its cinnamon, emeralds, sapphires and cats-eyes. Syrian in Pegu imported Indian goods, European hats, and silver and lead which passed for money; it exported timber, ivory, lac, iron, tin, earth-oil, rubies and diamonds. Achin and Bencolin in Sumatra took large quantities of Indian goods, and exported fine gold-dust and ivory. Siam had timber and agala wood. Cambodia had ivory, stick-lac, gum and raw silk. Tonquin was rich in gold and copper, abundance for raw silk, lacquered ware and coarse porcelain; the Chinese ports took putchoc

from Cutch as incense, and exported gold, copper, raw and wrought silks, lacquered ware, porcelain, tea and rhubarb. Gold was plentiful in Japan, and its earthenware, lacquered work, and silks were in many respects better than the corresponding manufactures of China.

From England came lead in pigs, barrels of tar, sword-blades and penknives, spectacles, looking glasses, swinging glasses, hubble-bubbles, rosewater bottles, guns and flowered cloth green scarlet and white. The exports were indigo, pepper, coffee, drugs, cotton wool, cloth, cotton, myrrh, aloes, saltpetre, book-muslins and dorias.

Merchants : Among the Bombay merchants, the number of English, both in the Company's service and as private traders, had increased. The other merchants were chiefly Armenians, Hindus and Musalmans. As in former times, Hindu traders were settled at great distances from India. In 1669, among the schemes for increasing the population of Bombay was one for tempting Persian Banians to settle in the Island. About 1700, at Bandar Abas the Banians were strong enough and rich enough to prevent the slaughter of cattle by paying a fine. Banians were also settled at Cong and Bassora, and at Mokha.

Ships : Some of the ships used by the English were of great size. Hamilton was at one time in command of a vessel that drew twenty-one feet. The native merchants had also large fleets of fine vessels. One Muhammadan merchant of Surat had a fleet of twenty sail varying from 200 to 800 tons. English captains were in much request with the Moghals of India, who gave them handsome salaries and other indulgences.

Pirates, 1700 : The sea seems to have been specially troubled with pirates. The most dangerous were the Europeans, of whom Captains Every, Kidd and Green were the most notorious. Hamilton notices two nests of European pirates, near Madagascar and on the east coast of the Bay of Bengal. Next to the European pirates the most formidable were the Maskat Arabs, who sometimes with fleets of as many as 1,500 men scoured the west coast of India. Along the west coast of India were many nests of pirates, of which the chief were the Sanganians on the north coast of Kathiawar, the Warels of Chhani on the south coast, the Sidis, and the pirates of Porka on the Malabar coast.

Bombay, 1710-1720 : After the union of the London and the English Companies in 1708, Bombay began to recover from its deep depression. By 1716, the population had increased to 16,000, provisions were abundant, and thanks to the building of a strong dyke at the Great Breach, much of the salt swamps had dried, and the climate was pleasant and with care as healthy as England. The Town Wall was finished in 1716, and the Cathedral was begun in November 1715 and finished in 1718. It is necessary here to take a bird's-eye-view of the

events that followed the execution of Sambhaji. The Marathas carried on the grim struggle with the emperor under the able leadership of Rajaram, Ramchandrapant Amatya, Santaji Ghorpade, Dhanaji Jadhav and others and no general of Aurangzeb was spared from the task of defeat and humiliation. The Marathas raided every part of the Moghal empire, collecting *chaauth*, destroying Moghal out-posts and liberating the occupied territory of the *Swarajya* under the Moghals. In the midst of these events Rajaram died on March 2, 1700. The mantle of leadership now fell upon Tarabai, the wife of Rajaram, who fought with equal determination so that in the end Aurangzeb had to retire to Ahmadnagar in 1706 humiliated, defeated and vanquished. He died at the same place on February 20, 1707. His death sparked off a war of succession between his sons Muazzam and Azam and the latter to safeguard his rear from the Marathas released Shahu, the son of Sambhaji, who was in Moghal captivity hoping that it would lead to a dispute between Tarabai and Shahu. Not only the death of Aurangzeb was the beginning of fresh struggle of loss in all the parts of Thane as elsewhere but as expected by Azam the release of Shahu caused a division among the Maratha nobility with some aligning themselves with Shahu and the others with Tarabai, the wife of Rajaram. It may be noted here that in the struggle for succession to the throne of Delhi, Muazzam defeated Azam and succeeded to the throne under the title of Shah Alam Bahadur Shah, on June 8, 1707. In the clash of arms between Shahu and Tarabai at Khed on October 12, 1707 Shahu emerged successful and was later crowned King on January 12, 1708. In this war with Tarabai Shahu received valuable help and guidance from Balaji Vishwanath who was made *Senakarte* on November 20, 1708. However the greatest achievement of Balaji was persuading Kanhoji Angre the warden of the West Coast and head of the Maratha Navy. Kanhoji had made himself nearly independent and spread his power over the south of Thane and had captured several forts above the *ghats* including Rajmachi. His jurisdiction also extended as far north as Bhiwandi in Thane district. He had gone over to Tarabai during the struggle for power between her and Shahu and he defeated *Peshwa* Bahiro pant Pingle whom Shahu had sent against him. Shahu therefore asked Balaji to proceed against Kanhoji at the same time conferring upon him the office of the *Peshwa*. Balaji succeeded in achieving by diplomacy that which Bahiro pant had failed to achieve by recourse to arms. Kanhoji was won over by the *Peshwa* who extended on Shahu's behalf full support to Kanhoji in his wars with the naval powers on the western coast especially the Siddis and the English. This happy conclusion of what first appeared to be a calamity had its natural effect upon the policy of the Siddi of Janjira who readily concluded a peace with Angre on

January 30, 1715 and the English at Bombay. The English however would not so easily give up the game and on several occasions sometimes alone and sometimes with the Portuguese attacked Kanhoji's possessions of Vijaydurg, Khanderi and Kolaba but never with any appreciable measure of success. They needed a lesson particularly their pugnacious president, President Charles Boone, who assumed office on December 20, 1715, who resented Shahu's power and prestige. He organised a strong naval expedition to extirpate the pirate as Angre was then styled by the English. The English venture failed miserably. As stated earlier they now formed a coalition with the Portuguese of Goa and launched a conjoint attack against Angre in 1721 when Bajirao who had succeeded his father as *Peshwa* suddenly swooped upon the English by land and routed them near Colaba. The English thought it wise to retrace their steps by concluding a treaty of peace with the *Peshwa*. It may be noted here that the coastal districts suffered more than ever from the raids of Arab pirates during this period. Four times between 1712 and 1720 they fought the Portuguese fleet which they formerly used carefully to avoid.

The Portuguese, 1727: About 1720 the relations between the Portuguese and the English were more than usually strained. The Bombay Government found that the Portuguese priests were stirring up their people, who numbered about 5,000 or one-third of the population of the island, against the English. They accordingly resolved, that instead of the Viceroy of Goa appointing the priests, the congregations should choose their priests, and that the priest chosen by the people should be nominated by the Bombay Government. Enraged at this change the Portuguese General of the North forbade the transport of provisions to Bombay, and seized English craft in the Mahim river. Governor Boone retaliated (5th July 1720) by proclaiming the lands of all absentee Portuguese confiscated to Government, and among other properties Parel was taken from the Jesuits and made a Government House. The British messengers who were sent to Bandra to make the proclamation were seized, carried to Thane in irons, and there hoisted on a gibbet. On their return, sound in limb "but very sore and mighty terrified", a small body of British troops was sent to Mahim. A well-aimed shell, lighting on the roof of the Jesuit Church at Bandra, killed several of the priests and brought the rest to terms. Two years later some Portuguese, found contrary to agreement repairing a fort apparently at Kurla, were attacked and driven off with the loss of twenty or thirty lives.

In 1727 the Portuguese made some efforts to check the decay of their power. An officer was sent to examine the defences of their Thane possessions and suggest reforms, and a scheme was started for buying back the island of Bombay. The officer sent to examine the defences

found the management most loose and corrupt. There was no systematic defence. The militia was in confusion. There was no discipline. Some were called captains and some corporals, but all were heads. Of the troops of horse, the Daman troop was never more than forty strong, and the Vasai troop never more than eight. So weak were they that the infantry had to go into the field while the horse stayed in the fort, the troopers being filled with vices and the horses full of disease from want of exercise.

Vasai had ninety pieces of artillery from three to twenty-four pounders. The garrison was eighty men, almost all natives, many of them sick of past work. Of twelve artillery-men five were useless. There was no discipline. If it was hot or if it was wet, the men on guard left their posts and took shelter in some neighbouring house. The walls were ruined in many places, and towards the sea-side, a sand-hill rose as high as the curtain of the wall. Some rice dams had turned the force of the tide on to the north wall and endangered it. The country between Vasai and Agashi was green, fertile and well-wooded, the gem of the province. But the creek which used to guard it on the land-side had been allowed to silt, and in places might be crossed dry-shod. The hill of Nilla, Nil Dungri, about two miles east of Sopara, had been fortified without the help of an engineer. The bastions were so small that there was no room to work a four-pounder gun. At Sopara, the great gap near Bolinj had been strengthened by a stockade, but the pillars were rotting and were hardly able to hold two cannons. The palm stockade at Saivan was so decayed that a few shots would bring it to the ground. Five companies of a nominal strength of 250 men guarded the Saivan village. In the decay of honour the actual strength of each company was not more than ten or twelve men, and they were little better than thieves, fleecing their friends but never facing the foe. So thoroughly had they forgotten their drill that they could not even talk of it. Through Kaman there was an easy entrance to Salsette. It was deplorable to see so rich an island, with its seventy-one villages, supporting Vasai and great part of Goa, so utterly unguarded. It was open to attack from the Sidi, the English or the Marathas. At Thane, to guard the dry ford across the creek, there were to the south the towers of Sam Pedro and Sam Jeronimo, one with four soldiers and four guns, the other with two soldiers and two guns, and to the north was the Deis Magos with four soldiers and four pieces of artillery. These towers were of no use. They stopped the shipping, but could never stop an enemy. A royal fort should be built and the creek guarded. The Versova fort was small, ugly, old and ruined. It had a garrison of fifty men and ten pieces of artillery, but only two of the pieces were serviceable. The fort at Shabaz, or Belapur, had four companies of

180 men, with fourteen guns from four to twelve pounders. On the Karanja island were 400 men able to carry arms. The fort on the plain had a garrison of fifty men, one artillery-man, and six one to six-pounder guns.

In the north, Manor was not worthy of the name of a fort, the wall in places being not more than six feet high. There was a garrison of 104 men, and eight guns of which five were useless. The magazine was bad and the bastions ruined. The captain took contracts for timber, and, neglecting his duty, employed his men in the menial work of hawling logs. There were 150 men on Asheri, but, as at Manor, they were timber-draggers rather than soldiers. All showed neglect and waste, many of the men being old and useless.

The Kelva-Mahim fort was irregular and feeble. There was a garrison of sixty men, of whom seven were white; there were fifteen, two to ten-pounder guns but no artillery-men. Many of the arms were unserviceable. There was also a stockade with a captain and thirty men, fourteen of whom had been sent to Santa Cruz opposite Kalyan. At Tarapur were sixty men and twenty-three to twelve pounder guns. There were no artillery-men. Of the sixty men, thirty were at Santa Cruz. Things seemed beyond cure. The abuses were so ingrained that they seemed natural. Besides there was no money and even were money spent and things put straight, unless there were more Europeans all would again go wrong. In the last twenty years decay had been most rapid.

The troops consisted of several small detachments, each on a different footing from the other. Three companies belonged to the army of Goa, six were flying companies, two belonged to the administration, and seven were of sepoys. Besides these, nine companies had lately been raised, but they had no pay and were fed by their captains. There ought to be a force of twenty companies, regular muster-rolls, and pay certificates and better pay. Half the men should be white. The only power that was to be dreaded was the Maratha court. Friendly relations should be established with the Marathas. Yearly presents would save many of the raids which, during the last thirteen years, had ruined the miserable lands of Daman. The Portuguese nobles, as was originally the case, should be forced to build a moated fort or tower in each village and keep a body of twenty men able to carry arms.

This exposure was not in vain. A beautiful fort was begun at Thane, and judging by the result a few years later, other leading fortifications were repaired and the garrisons strengthened and made more serviceable. As regards the scheme of buying back Bombay the Viceroy Joao de Saldanha da Gama, on the 18th of January 1727, sent the King a long report estimating what the purchase would cost

and how the funds could be raised. The negotiations, or at least inquiries and calculations for the English do not seem to have been consulted, went on till the over-throw of the Portuguese in 1739.

MARATHA — PORTUGUESE

The conquest of the island of Salsette and the strong fortress of Vasai from the possession of the Portuguese constitutes one of the most glorious chapters in the history of the Marathas. The Portuguese held a few fortified places in a strip of the west coast extending from Goa to Daman which served as bulwarks of defence impregnable to any invader. The friction between the Marathas and the Portuguese developed due to the religious fanaticism of the Portuguese and the desire of the former to extend their supremacy and protect the Hindu religion. The Portuguese forced whole villages to embrace Christianity at the point of sword, destroyed temples and places of worship and raised churches on their site. Way back in 1719 Balaji Vishwanath had re-conquered the district of Kalyan and extended his conquest to Jawhar and Ramnagar. In 1730 Pilaji Jadhav carried war into Portuguese territory and captured Kamba, a Portuguese outpost, near Bhivandi. In 1732 Count de Sando Mille, the new Portuguese governor, adopted a very hostile attitude towards the Marathas and fearing an attack upon Thane, one of the twin important possessions of the Portuguese on the western coast, the other being Vasai, hurriedly started to build a strong fort at Thane. The Government of Bombay who felt that the success of the Marathas endangered their island sent three hundred men to garrison Thane, but soon after withdrew the aid. The Marathas considered the action of the Portuguese in building a fort at Thane as a direct threat to their possessions of Kalyan and the north Konkan districts which they could not ignore. Another action of the Portuguese which the Marathas considered as hostile was the help rendered by the former to Sambhaji Angre in his dispute with his brothers for succession after the death of Sekhoji Angre on 28th August 1733. The time also favoured the Marathas. Before the fortifications at Thane were completed, the Marathas opened hostilities against that place in the summer of 1737.

Attack on the Portuguese, 1739: The first step taken by the Marathas was to attack the island fort of Arnala, off the mouth of the Vaitarna. The fort was taken and the commandant and the garrison put to the sword. The Marathas next attacked Salsette, took Ghodbandar and put the garrison to the sword, and gaining command of the river, prevented help being sent from Vasai to Thane. At Thane, though the fort was well advanced, the defences were unfinished. Chimaji Appa, the brother of *Peshwa* Bajirao, who was in command

of the campaign, sent bands of selected men to capture Thane. The commandant of the fort fled to Karanja and though the garrison made a gallant defence, successfully driving back two assaults, in the end they were forced to capitulate. The Marathas quickly completed the fortifications and organised the defence of the place in such a manner that it should serve as a strong base for operations against Vasai. The English sent men and ammunition to Bandra, but the defences were useless and the place was abandoned, and fell to the Marathas without a struggle. The Portuguese made strenuous efforts to re-gain what they had lost. They defeated the Marathas at Asheri, and gallant attack on Thane might have succeeded, had not the English warned the Marathas of the Portuguese preparations and supplied the garrison with powder and shot. In January 1737 Chimaji Appa, the *Peshwa's* brother, took command of the Maratha troops, and, in spite of obstinate resistance, captured most of the northern forts, Katalvada, Dahanu, Kelve, Shirgaon and Tarapur, whose walls were scaled by the Marathas, the Portuguese "fighting with the bravery of Europeans", till they were overwhelmed by numbers. Versova and Dharavi in Salsette, which still held out for the Portuguese, next surrendered in May and Santa Cruz in June. There was, however, no naval action so far. The siege of Vasai was now begun. The citadel of Vasai which was the main symbol of Portuguese power in this part of the country resisted all the landward attacks that were launched by the Marathas against it. A mile and a half in circumference and triangular in shape, the fort had strong stone walls rising to a height of thirty to forty feet from the ground and about five feet in thickness. Four-sided bastions rose from each corner on which strong artillery was mounted. To the south of the fort ran the Vasai creek, and the west was washed by the open sea. The eastern side was bounded by a belt of marshy land overflowed by tidal waves, while the north provided the only land passage for attack. The commandant of Vasai offered to pay tribute, but the offer was refused; he appealed to the English at first in vain, but he afterwards received from them a loan of Rs. 15,000. The siege was pressed with the greatest skill and perseverance, and Angre's fleet blocked all hope of succour. Still, with the help of some Portuguese lately came from Europe, so gallant was the resistance, little less brilliant than the heroic defences of Diu and Chaul, that before Vasai was taken three months (17th February—16th May) had passed and 5,000 Marathas were slain. A surprise attack on Vasai immediately after the capture of Thane by Shankarji Phadke was repulsed. It was not easy going for the Marathas because they had to fight on two fronts now, with the Moghals putting forth their last supreme effort against them under the sole command of their veteran leader Nizam-ul-mulk. Chimaji

Appa had thus to manage two arduous campaigns, Vasai and Bhopal simultaneously with the result that all action against Vasai came perforce to a standstill during the early months of 1738. The interval, however, afforded a welcome relief to the Marathas and enabled them to mature their plans and deliver their final attack with no chance of failure. The opening of the fair weather season at the end of 1738 was availed of and Holkar, Shinde, Pawar and other renowned officers from the north were summoned and directed with singular effect against the fortress of Vasai.

The Portuguese had also not remained idle during this period of Maratha inactivity. They received reinforcement from Europe in men and material. In 1738 they started a great offensive against the Marathas who had attacked Mahim, another Portuguese fort. One of the Maratha Generals, Mahadji Pant Phadke, lost his life which caused a sort of general depression among the Marathas. Chimaji Appa was now faced with a delicate situation and anything short of a determined campaign would have spelt danger to the entire Maratha project of subjugating the Portuguese stronghold of Vasai. In the meanwhile the Portuguese made a last effort to re-capture Thane in which encounter a chance shot from the fort garrison killed the Portuguese commander Pedro do Mello when he was inspecting the defences from his boat roving through the creek. This dampened the spirit of the Portuguese and gave a shot in the Maratha arm. Chimaji now personally proceeded to the theatre of war to take command of the campaign and wage a war of life and death regardless of the losses this would entail. He descended into the Konkan in the month of December with his very best commanders and selected troops and occupied the marshy regions traversed by the various creeks. He then surveyed the whole terrain and formed concerted plans for simultaneous storming, assigning duties with definite instructions and inculcating care and caution. All these conceivable preliminaries added a spirit of buoyant hope and optimism. It goes to the credit of the Portuguese that they fought and contested every inch of the ground and defended their positions with the courage of desperation making the ultimate victory of the Marathas as costly as possible to them. During these difficult months from November to June, Chimaji was the moving spirit in the whole Maratha camp always on the move like lightning.

The Marathas' successes began with the capture of Mahim on 9th January 1737, followed a fortnight after by that of Tarapur and Asheri on 24th. Dharavi, a small island at the mouth of the Vasai creek, was captured on 6th March which sealed the fate of the main fortress as it gave the Marathas a position of vantage for an effective attack. It may be noted here that the capture of Mahim and Tarapur was no easy task for the Marathas due to the stiff resistance offered

by the Portuguese. In the attack on Tarapur Daji Bhivrao, a most trusted lieutenant of Bajirao, lost his life whereas Ramchandra Hari Patwardhan was seriously wounded.

The period that followed saw the fall of most of the Portuguese ports in the region of Vasai to the Marathas. This enabled the Marathas to move with concentrated efforts against Vasai. Chimaji, to make the capture of Vasai less exacting, had already arranged to prevent any reinforcement reaching to Vasai from Goa by sending Vyankatrao Ghorpade against Goa to thwart any such possible attempt by the Portuguese.

Chimaji arrived before Vasai on 7th February 1739 and immediately began preparations for attacking the place. A passage had to be forced by demolishing the strong stone-walls over which the Portuguese had mounted their long-range artillery pieces, which was possible only on the landward line from the north. With this view the Marathas began laying mines under the foundations of the walls. These attempts of the Marathas were met with volleys of fire and a cannonade from the fort garrison. The Maratha miners however pushed on with grim determination and the fire poured incessantly from the Maratha artillery against the fort walls silenced the Portuguese guns. The siege was now relentlessly pressed and the Marathas succeeded in springing thirteen mines on the cortiles and the bastions. On the fateful morning of 2nd May, as the Maratha drums beat a loud peal, the mines were ignited. The explosion that took place shook the northern towers blowing them up and making wide breaches in the walled fortifications. The besieging Marathas rushed in through the breaches but for some time confusion prevailed due to some mines exploding late and the Marathas suffered some casualties. But they pressed on vigorously against the determined Portuguese opposition and a grim hand-to-hand fight ensued leading to heavy carnage on both the sides. The battle continued and the next day saw another heavy explosion of a delayed mine which made a wide breach in the fort-wall enabling the advancing Maratha parties to rush in through them and making a lodgment in the bastions. This proved to be the beginning of the end which now appeared to be so near. The grim battle lasted for two days. The Portuguese losses amounted to eight hundred officers and men killed and unknown number wounded. They had exhausted all ammunition and there appeared to be no chance of any succour reaching them in time. This rather proved to be a decisive factor and the survivors lost all hope of withstanding the siege any further. On May 4 the Portuguese hoisted the white flag and one of their officers met Chimaji Appa for arranging terms of surrender. The capitulators were signed on May 5 and the Marathas allowed the Portuguese a week for evacuation.

The terms were honourable both to the Marathas and to the Portuguese. The garrison was allowed to march out with the honours of war unmolested with all their families and belongings and those who wished to leave the country were granted eight days in which to collect their property. War-vessels in the harbour were allowed to remove the artillery and full liberty for practising one's own religion was proclaimed throughout the district of the North Konkan, which was indeed the main purpose of the war. An exchange of prisoners was also satisfactorily effected and all Portuguese churches were granted full liberty of worship and prayer according to Christian rules. Most of the large land-holders gave up their estates and sailed for Goa. Except five churches, four in Vasai and one in Salsette, which the Maratha general agreed to spare, every trace of Portuguese rule seemed fated to pass away. A high authority Governor Duncan, in Regulation I of 1808, traces the fall of the Portuguese to the unwise zeal of their priests and to their harsh treatment of their Hindu and Musalman subjects. Khafi Khan's statements that the Portuguese treated their people kindly, and that till the close of the seventeenth century, Hindus and Musalmans continued to settle in Portuguese territory, cannot be accepted at their face-value. The fall of the Portuguese could be attributed to the fact that the Portuguese in Europe, careless of their Indian possessions, failed to keep the European garrison at its proper strength; that the officials in India, keen only to make money, let their defences fall to ruin; and that the hardy vigour of both gentry and priests had turned to softness and sloth. All rested in an empty trust in the name which their forefathers had left, wilfully blind to the law that to be rich and weak is to court attack and ruin.

With the war over, the Marathas took possession of Vasai on 12th May 1739 and on the auspicious day of 23rd the ochre-coloured Maratha flag was ceremoniously unfurled from the ramparts of the Vasai fort. The occasion marked the annexation of the strong fortress and the province to the Maratha dominions. The Portuguese power which had flourished and terrorised the coastal regions for well over two centuries was practically destroyed and came to be confined to three isolated places, viz., Goa, Daman and Diu.

On the fall of Vasai, the Government of Bombay sent boats to bring away the garrison. To the commandant the Bombay Government paid the attention which his courage and misfortunes deserved. They allowed his officers and about eight hundred of his men to remain on the island during the monsoon, and advanced a monthly allowance of four thousand rupees for their maintenance. Though most of the Salsette gentry retired to Goa, many families took refuge in Bombay. It was melancholy, says Grose (1750), to see the Portuguese nobles

reduced on a sudden from riches to beggary. Besides what they did publicly to help the Portuguese, the English showed much private generosity. One gentleman, John de Souza Ferras, was extremely pitied by the English. He had owned a considerable estate in Salsette and had endeared himself to the English by his kindness and hospitality. He continued many years in Bombay caressed and esteemed. At the close of the rains the Portuguese troops refused to leave Bombay till their arrears were paid. This demand was met by the Bombay Government who advanced a sum of Rs. 53,000. On the 29th of September the Portuguese were taken to Chaul in native vessels, under a Government convoy. The commandant and the Viceroy of Goa united in sending the Governor of Bombay the warmest acknowledgements of his kindness. But the sufferings of the Portuguese troops were not over. From Chaul they marched by land, and on the 15th of November, when within two hours march of shelter in Goa, they were attacked and routed by Khem Savant with the loss of two hundred of their best men. The English Commodore saw the miserable remnant arrive in Goa with "care and grief in every face". As they were no longer able to hold them, the Portuguese offered the English Chaul and Korlai fort on the south bank of the Chaul river. The English could not spare the men to garrison these places, but trusted that by ceding them to the Marathas they would gain their regard, and might be able to arrange terms between the Portuguese and the Marathas. The Portuguese placed their interests in the hands of the English. The negotiation was entrusted to Captain Inchbird, and though the Marathas at first demanded Daman and a share in the Goa customs, as well as Chaul, Inchbird succeeded in satisfying them with Chaul alone. Articles of peace were signed on the 14th of October 1740.

Bombay, 1740: Except the island of Bombay, the wild north-east, and some groups of Angre's villages in the south-east corner, of which, at his leisure he could take what parts were worth taking, the *Peshwa* was now ruler of the whole of Thane. The change caused great alarm and uneasiness in the English settlement of Bombay. Bombay was little prepared to stand an attack as had been made on Vasai. The town-wall was only eleven feet high and could be easily breached by heavy ordnance; there was no ditch, and the trees and houses in front of the wall offered shelter to an attacking force. A ditch was promptly begun, the merchants opening their treasure and subscribing Rs. 30,000 "as much as could be expected in the low state of trade"; all native troops were forced to take their turn at the work; gentlemen and civilians were provided with arms and encouraged to learn their use; half-castes or *topazes* were enlisted and their pay was raised; the embodying of a battalion of sepoy was

discussed ; and the costly and long-delayed work of clearing of its houses and trees a broad space round the town-walls was begun. Though the Marathas scoffed at it, threatening to fill it with their slippers, it was the ditch that saved Bombay from attack. In their anxiety therefore to forestall any possible Maratha offensive against Bombay they sent captain Inchbird to conciliate Chimaji Appa while he was occupied at Vasai in settling its administrative affairs. Inchbird and Chimaji Appa met in June 1739 and Inchbird, conducting his mission skilfully and successfully, arranged a general treaty of peace and friendship in their mutual interest. The English were, however, not satisfied with their particular settlement as they wanted to know the inherent strength of the Maratha power, especially the exact relations between the *Chhatrapati* and the *Peshwa*. With this view in perspective they sent another mission to *Chhatrapati* Shahu at Satara under captain Gordon. Captain Gordon was particularly instructed to find out any loose link in the relationship between the *Chhatrapati* and the *Peshwa*. Gordon left Bombay on 12th May and visited Shahu on 8th June and after spending a fortnight at Satara returned to Bombay on 14th July 1739 with the assurance that the leading Maratha chiefs admitted the value of English trade and would not molest Bombay.

The feeling of security brought by these successful embassies soon passed away. When their fleet left, conveying some merchantmen, news came to the gathering of a great Maratha force at Thane. Alarm turned to panic. Numbers fled buying or carrying away their valuables. Should the fleet be sent to convoy merchantmen, or should trade be sacrificed and the fleet kept to guard the harbour ? This dilemma was solved in a disastrous way for Bombay. On the 9th of November a frightful storm destroyed their three finest grabs, completely armed and equipped and commanded by three experienced captains. Instantly Sambhaji Angre appeared in the harbour, and carried away fourteen fishing boats and eighty-four of their crews. Remonstrance was vain, retaliation impossible.

The immediate danger passed over, but for nearly twenty years Bombay lived in fear and trembling. In 1750, Grose laments that the friendly, or, at worst, harmless belt of Portuguese territory that used to guard them from the Marathas was gone. They were face-to-face with a power, unfriendly at hearts, whose officers were always pressing the government to lead them to Bombay, and let them raze its wretched fort and pillage its markets. The Marathas who had acquired new dimensions to their naval power were prone to treat the English with disdain and since European deserters had taught them how to carry on sieges, they were very formidable enemies. The English Governor of Bombay, Bournier (1750-1760), claimed that he succeeded

in keeping the Marathas in good humour. Whatever it may be, the Marathas knew that they gained much by European trade. However, the English were convinced that there was no trusting to their keeping this in mind and change of ministers, a clamour for the sack of Bombay, a scheme to humour the troops, was enough to make them break their pledges of friendship even though they knew that the breach was against their interest. To all human appearance, Bombay ceased to be tolerable the instant the Marathas resolved on its conquest. Even could the fort hold out, it could be blockaded, and supplies cut off.

Grose gives interesting particulars of the Marathas who had taken Thane and Vasai, and who held Bombay in this hollow of their hands. Most of them were land-tillers called Kurumbis, of all shades from deep black to light brown, the hill-men fairer than the coast-men. They were clean-limbed and straight, some of them muscular and large-bodied, but from their vegetable diet, light, easily overborne in battle both by Moors and by Europeans. Their features were regular, even delicate. They shaved the head except the top-knot and two side curls, which showing from the helmet, gave them an unmanly look. The rest of their dress was mean, a roll of coarse muslin round the head, a bit of cloth round the middle, and a loose mantle on the shoulders also used as bedding. The officers did not much out-figure the men. The men lived on rice and water carried in a leather bottle; the officers fared little better. Their pay was small, generally in rice, tobacco, salt or clothes, horses were small but hardy, clever in rough roads, and needing little fodder. The men were armed with indifferent muskets mostly match-locks. These they used in bush firing, retreating in haste to the main body when they had let them off. Their chief trust was in their swords and targets. Their swords were of admirable temper, and they were trained swords-men. European broadswords they held in contempt. Their targets were light and round, swelling to a point and covered with a lacquer, so smooth and hard that it would turn aside a pistol shot, even a musket shot at a little distance. They were amazingly rapid and cunning. The English would have no chance with them. They might pillage Bombay any day.

Fortunately for Bombay the Marathas remained friendly until two events, the destruction of Angre's power in 1757 and the crushing defeat of the Marathas at Panipat in 1761, raised the English to a position of comparative independence. As stated earlier, after the death of Sekhoji Angre on 28th August 1733 dispute arose between his brothers Sambhaji, Manaji and Tulaji for succession to the *sarkhelship* which in the end not only proved disastrous to the House of Angre but also to the Maratha navy. Bajirao, at the instance of *Chhatrapati* Shahu, intervened in the dispute by dividing the

possessions of the Angres between Sambhaji and Manaji. The two brothers, not content with the division, started an open war of which the English and the Portuguese were not slow to take advantage. The death of Sambhaji on January 12, 1742 did not improve the relations between the two families of Angre. Sambhaji's brother Tulaji claimed the *sarkhelship* by openly accepting the challenge thrown by *Chhatrapati* Shahu towards the capture of Anjanwel and Gowalkot which he achieved in January 1745. Tulaji now became more aggressive and carried depredations in the regions traditionally assigned to the *Peshwa*, the *Pratinidhi*, the *Amatya* and the *Sawant* of Wadi who combined in 1748 to put down Tulaji. Manaji, his brother, remained neutral in this conflict and took shelter with the Portuguese at Chaul lest he should suffer also at the hands of the alliance. The *Peshwa* ordered the capture of Chaul from Portuguese and entrusted the campaign to Ramji Mahadev. Chaul surrendered on January 15, 1748 and Manaji was now forced to fall back upon the good will of the *Peshwa*. Tulaji however proved intractable and his defiant attitude to the *Peshwa* endangered the safety of the western sea-board of the Maratha State. The *Peshwa's* hands were restrained during the life-time of *Chhatrapati* Shahu in dealing with Tulaji. After the death of Shahu in December 1749 the *Peshwa* decided to punish Tulaji. He had to proceed very wearily as both the Portuguese and the English were ready to fish in troubled waters. Any combination between these three would have proved dangerous to the security of the Maratha State. The *Peshwa* therefore gained the friendship of the English by promising not to help their enemies the French on the understanding that the English would not help Tulaji Angre. However when tension grew between Tulaji Angre and Ramji Mahadev, the *Peshwa's* governor of Kalyan, the latter entered into negotiations with the English at Bombay at the instance of the *Peshwa*. A joint command was initiated for the destruction of Tulaji Angre. The campaign against Tulaji was opened in 1755. The English fleet under Commodore James took the important coast-forts of Suvarndurg and Bankot in the north of Ratnagiri. In 1756, strengthened by the presence of Admiral Watson and of Colonel Clive, the English attacked and took the great coast-fort of Vijaydurg in Ratnagiri, burnt Angre's fleet, and utterly destroyed his power. They were still so afraid of the Marathas that the empty threat of an invasion of Bombay made the English break off a favourable agreement with Faris Khan at Surat. In 1759 they gained command of Surat castle and became Admirals of the Moghals fleet. So encouraged were they with this success that in 1760 they were bold enough to side with the Siddi against the Marathas and to hoist the English flag at Janjira. The defeat of Panipat in 1761, the death of the *Peshwa* Balaji Bajirav, and the succession of a minor,

freed the British from the persistent fear of the Marathas. During 1761 when Pune was threatened by the Nizam, Raghunathrao, the *Peshwa's* uncle, requested the English at Bombay to send military aid. The English however demanded in return for such help the cession of Vasai and the whole of the island of Salsette to which Raghunathrao replied that Vasai could never be parted with. The danger of the Nizam's invasion had now passed and the help of the English was no longer needed. A little later when the *Peshwa* undertook operations against Haidar Ali, the Bombay authorities tried immediately to point by the contest. They were eager to possess the coastal region bordering the island of Bombay and taking advantage of this opportunity seized Malwan on 25th January 1765. Madhavrao realised the dangers implicit in this wanton aggression and when in 1767 the English sent their ambassador Thomas Mostya to solicit Maratha help against Haidar Ali the English could not obtain any material results. Madhavrao, after effectively dealing with his recalcitrant uncle, had so retrieved Maratha affairs that he refused to listen to any proposal for the cession of Salsette and the harbour islands.

On the conquest of Vasai in 1739 the Marathas introduced a regular and efficient government. Under the name of Bajipur or Bajirao's city, Vasai was made the headquarters of the governor or *sarsubhedar* of the Konkan. Under the *sarsubhedar* were district officers, styled as *mamlatdars* whose charges generally yielded about Rs. 5,00,000 a year ; and who besides managing the revenue, administered civil and criminal justice and police. Under the *mamlatdars* were village headmen or *patils*. In Salsette the Marathas raised the land assessment and levied many fresh cesses. In spite of these extra levies the island was fairly prosperous, till in 1761 on the death of Balaji Bajirao *alias* Nanasahab the system of farming the revenue was introduced. In 1768 the district of Kalyan, stretching from the Pen river to the Vaitarna, had 742 villages yielding a land revenue of Rs. 4,50,000 and a customs revenue of Rs. 2,50,000.

State of West Thane, 1760 : At the close of 1760 (November-December) the French scholar Anquetil du Perron made a journey from Surat to visit the Kanheri and Elephanta caves. Both in going and coming his route lay along the coast. He travelled in a palanquin with eight bearers, four armed sepoy, and Parsi servants. He was himself armed with a pair of pistols and a sword and had two passports—one for the Marathas and the other for the Musalmans. Throughout the whole of Thane order seems to have been well established. The Marathas found it difficult to protect their shores against pirates, but they were busy repairing and building forts. Both in going and in coming, Du Perron was free from the exactions either of highwaymen or of officials. Of the appearance of the country

between Daman and Salsette he gives few details, except that from Nargol southwards, he occasionally mentions palm-groves and notices the beautiful orchards of Agashi. There were Christians in several of the villages where he halted, and though many of their churches and buildings were in ruin or in disrepair, some were in order, and at Agashi, the road was full of Christians, going to church as freely as in a Christian land. With Salsette he was much taken. It was no wonder that it had tempted the Marathas and if only the English could get hold of it, Bombay would be one of the best settlements in the east and would yield Rs. 24,00,000 a year. It was full of villages almost all Christians. There were several ruined churches and convents, and the European priests had left. But the Marathas had allowed the Christians to keep some of their churches, and the native priests, under a native Vicar General, kept up the festivals of the church with as much pomp as at Goa. Their processions were made without the slightest danger, even with a certain respect on the part of the Hindus. A festival at Thane in which Du Perron took part was attended by several thousand Christians. The Maratha chief of the island did not live in Salsette, but on the mainland in a fort commanding Thane. About the same time (1750) the traveller Tieffenthaler described the people of the inland parts of Thane as a kind of savages brought up in thick forests, black and naked except a strip of cloth round the loins.

Bombay, 1760-1770: Meanwhile, Bombay had been growing larger, richer and healthier. In 1757 Ives describes it as the most flourishing town in the world "the grand store-house of all Arabian and Persian commerce". In 1764 Niebuhr found the climate pleasant, the healthiness much improved since some ponds had been filled with earth. The products were rice, cocoanuts and salt. The population had lately greatly increased. The old castle was not of much consequence, but the town was guarded on the land-side by a good rampart, a large moat, and revelins in front of the three gates. There were also towers at Mahim, Riva north of Dharavi, Sion, Suri, Mazgaon and Varli; there were 300 native troops on the island, and thanks to a Swiss, the artillery were in excellent order. The greatest work was the dock. The Marathas still continued to treat the English with rudeness. In 1760 they carried off a Bombay cruiser. War seemed certain, but the English had sent a large number of troops to Calcutta and Madras, and they chose a friendly settlement. Another writer makes the population sixty thousand, and the sale of woollens and other English goods at Rs. 14,00,000 a year. Still, he adds, the island does not pay. In 1766 Forbes found the climate in general healthy and pleasant, though a considerable tract was over-flowed by the sea. The merchants traded with all the principal sea-ports and interior cities of India, and extended their commerce to the Persian and Arabian gulfs, the coast

of Africa, Malacca, China and the eastern islands. The provision markets were well supplied from Salsette and the mainland, and every spot that would admit of cultivation was sown with rice or planted with cocoa palms. The town was about two miles in circumference, surrounded by modern fortifications. There were three excellent docks and a spacious marine-yard, where teak ships of all sizes were made by skilful Parsis, the exact imitators of the best European models. Of public buildings there were a Government house, customs-house, marine-house, barracks, mint, treasury, theatre and prison. There were three hospitals, a Protestant church, and a charity school. The English houses were comfortable and well furnished, not yet deserted for country villas. The street in the black town contained many good Asiatic houses, kept by Indians especially by Parsis. Bombay was one of the first marts in India, a place of great trade. The government was simple and regular, managed with order and propriety, but the revenue was always inadequate to the expenses. The outlay was seriously increased by the building of new fortifications in 1768. The Court of Directors and the Bombay Government agreed that, without the possession of some of the neighbouring lands, Bombay could not be held. The most suitable lands were Salsette and Vasai, Salsette for its rice and vegetables, Vasai for its timber. No chance of gaining these lands was to be allowed to pass. With this object a British envoy was sent to Pune in 1771. The Marathas refused to cede any land and added 500 men to the Thane garrison. In consequence of this refusal, knowing that the Portuguese had lately made vigorous reforms and hearing that a fleet was on its way from Brazil to recover their late possessions, the Bombay Government determined to take Salsette by force.

It may be noted here that Mostyn whose mission had failed to achieve any results in 1768 was again posted by the Bombay authorities at Pune where he arrived in October 1772 and continued there till the end of 1774 to witness the affairs of Narayanrao's murder. His presence in Pune was harmful as he engaged in the perfidious activity of supplying valuable day-to-day information to the Bombay Council urging it to profit by the difficulties of the Maratha government. He actually advised the council to seize the fertile Maratha territories in the vicinity of Bombay. He suddenly left Pune to visit Bombay in December 1773 and under his advice Hornby, the President of the Bombay Council, planned an immediate attack upon the fort of Thane.

On the 2nd of December, 120 European artillery, 200 artillery lascars, 500 European infantry, and 1,000 sepoys, under the command of General Gordon, started from Bombay some by land and some in ships towards Thane. This sudden and unprovoked aggression on the

part of the English embarrassed the Maratha court and gave an opportunity to Raghunathrao who, after murdering his nephew Narayanrao, was after *Peshwaship* and trying to extricate himself from the charges levelled against him by the ministers. The Maratha court readily took up the challenge and adopted quick measures to defend Thane. The English which had left Bombay fell upon the slender garrison while it was entirely unguarded. Visaji Krishna who was dispatched from Pune could not bring the succour in time and though Anand Ram Biwalkar, the commandant of the fort, made the utmost exertions to defend the place, he however found the task of resistance hopeless and having lost the greater part of his men he surrendered the place on 28th December and was himself carried to Bombay with all the honours of war. Most of the remaining garrison was put to the sword. The deputy commandant of the fort was one Bhawanrao Kadam who had accepted bribe from the English offering them to hand over the fort. He was put under arrest by Anand Ram when his treachery was detected. After the surrender of the fort, the English, rather than protecting the treacherous Kadam, blew him from the mouth of the gun. A second British force took Versova, and a third occupied Karanja, Elephanta and Hog Island. By the 1st of January 1775, Salsette and its dependencies, including Vasai, were in the possession of the English. The Marathas however retaliated by blockading the coastal trade of the English and stopped supplies reaching Bombay. They now relinquished further hostilities and hastened to establish friendly relations with the Marathas. The English justified their attack on Thane by explaining that the Portuguese had planned a strong naval attack on that fort and the English simply anticipated them, instead of letting the fort fall into the possession of the Portuguese.

The Marathas were still not out of trouble. The *Barbhais* at the Maratha court with Nana Fadnavis as their strong man had declared Raghunathrao, the uncle of the murdered *Peshwa* Narayanrao, as usurper. The hands of the *Barbhais* were however strengthened by the birth of a child to Gangabai, the widow of Narayanrao. In his dispute with Nana Fadnavis as to the legitimacy of the child whom Nana had declared heir to the late *Peshwa*, Raghunathrao however made good his escape fearing that he would be arrested and retired to Gujarat. It was his friend Mostyn who came to his help at this dangerous crisis. Raghunathrao reached Baroda on 3rd January 1775 and from thence he proceeded to Cambay where he was received by Malet, agent of the British factory. Mostyn had already prepared the ground and instructed the various English workers to extend hospitality to Raghunathrao. On the 6th of March 1775, to obtain the help of the English, he agreed to a treaty, known as the treaty of

Surat. Among the various provisions of the treaty, it was stipulated that Raghunathrao should cede to the English in perpetuity all the Bombay islands including Thane, Vasai and Salsette and the talukas of Jambusar and Olpad near Surat. Vasai was soon after restored, but Salsette, Karanja, Hog Island and Khanderi, which at the time of cession were estimated to yield a yearly revenue of Rs. 3,50,000, were given over to the English.

In August 1775, Parsons found Bombay an elegant town with numerous and handsome houses, well laid out streets, and clean sandy soil. The esplanade was very large, and as smooth and even as a bowling green. Inside of the walls was a spacious green where several regiments could drill. Bombay castle was very large and strong, and the works round the town were so many and the bastions so strong and well placed, and the whole defended with broad and deep a ditch, that with a sufficient garrison and provisions, it might bid defiance to any force. Its dry dock was perhaps better, and its graving dock and rope-walk were as good as any in England. The ships built in Bombay were as strong, handsome, and well finished as any ship built in Europe.

At this time Salsette is described as having good water and a fruitful soil, yielding chiefly rice, capable of great improvement, and formerly the granary of Goa. Karanja yielded rice to the yearly value of Rs. 60,000 and Elephanta about Rs. 8,000. In 1774 Forbes, on his way to the Kanheri caves, passed through a country of salt wastes, rice fields, cocoa groves, wooded hills and rich valleys. The island was infested by tigers and was full of the ruins of Portuguese churches, convents and villas.

Shortly after the cession (May, 1775) the Marathas from Vasai landed on Salsette with 3,500 men, but were repulsed with great loss. A few months before (December 1774), at Gheria in Ratnagiri, Commodore John Moore, with the Revenue and the Bombay grab, had attacked and destroyed the chief ship of the Maratha navy, a vessel of forty-six guns. In 1776 an impostor, calling himself Sadashiv Chimnaji, gathered a large force and over-ran the Konkan. In October he marched up the Bor pass, but was driven out of the Deccan, and, seeking shelter with Angre was made prisoner, and the Konkan speedily reduced to order.

The English and Marathas : Meanwhile the English Government in Calcutta, which had lately been made supreme, disapproved of the support given to Raghunathrao, declared the treaty of Surat invalid, and sent their agent Colonel Upton to Pune to negotiate with the ministerial party. Upton tried his utmost to reap some substantial advantage for the English throughout his negotiations and demanded

the permanent cession of Vasai, Salsette and Broach. The Maratha government was however unbending on the cession of Vasai which was so vital to their existence as an independent power. The negotiations ultimately came to a breaking point and renewal of war seemed imminent. However the Maratha court was forced to relent upon their stand due to unexpected trouble developing in the Konkan region on the escape of the pretender of Sadashivrao Bhau from the fort of Ratnagiri. The negotiations were resumed leading to the conclusion of a treaty at Purandar near Pune on 1st March 1776. Under the terms of the treaty it was agreed that an alliance between the British and the ministerial party should take the place of the alliance between the British and Raghunathrao or Raghoba. At the same time the British were to continue in possession of Salsette, Karanja, Elephanta and Hog Island. In the meanwhile Raghunathrao who found his life at Surat irksome decided to seek the protection of the Portuguese at Chaul fearing that the English would deliver him into the hands of the Pune council. He left Surat in August 1776 and travelled to Daman and Tarapore on his way to Pune but an attempt to seize him by Mahadji Shinde forced him to proceed to Bombay in a British ship sailing from Tarapore, where he remained quiet as the guest of the British. Naturally in spite of this treaty, the feeling of the ruling party at Pune of which Nana Fadnavis was the head, was strongly hostile to the English. The English intention now appeared clear and they formed a definite plan of carrying out the original treaty of Surat even by means of open hostilities. The Pune council realised the trend of these events and prepared to meet the changed situation with courage and fortitude. When news arrived that war between England and France was imminent, Nana determined to make use of the French to lower the power of the English. In March 1777, St. Lubin, who declared himself as an accredited agent of the French King, and some other Frenchmen, landed at Chaul and proceeded to Pune and were received there with the highest honour. Lubin stayed in Pune for over a year. On St. Lubin's promise to bring a completely equipped French force to Pune, Nana concluded an alliance between France and the Marathas, granting the French the free use of the port of Chaul. At the same time Nana treated the English agent at Pune with marked discourtesy. A considerable party at Pune, whose leaders were Sakharam Bapu and Moroba Phadnis were hostile to Nana and were anxious to see Raghoba in power. Disappointed with the failure of the Purandar treaty, and feeling that only by the over-throw of Nana could French influence at Pune be destroyed, the Governor-General encouraged the Bombay Government to come to an arrangement with Sakharam Bapu's party, and promised to send a force over-land by Oudh and Berar to act with them in setting Raghoba in power in

Pune. A strong force was directed to meet on the Yamuna opposite to Kalpi, and Colonel Leslie, who was placed in command, was instructed to march across India towards Bombay, and place himself under the orders of that Presidency. Colonel Leslie crossed the Yamuna in May 1778, but getting mixed with local disputes in Budelkhand, he made little progress, and died on the 3rd of October 1778.

On receipt of the instructions from the Supreme Government, the Governor of Bombay decided to make a fresh alliance with Raghoba on the terms of the Surat treaty of 1775 in conjunction with Moroba Phadnis. It was Mostyn who won over Moroba. The English undertook to establish Raghoba in Pune, but stipulated that, unless he could prove that the young *Peshwa* was not the son of Narayanrao, Raghoba was to be placed in power merely as regent. In return Raghoba promised to cede Vasai and Khanderi island, the Atgaon which formed part of Salsette, and several districts in Gujarat. He also promised that, without the consent of the English no European should be allowed to settle in the *Peshwa's* territory. The treaty was concluded in Bombay on the 24th of November 1778. On the 22nd of November, hearing that the ministerial party was taking steps to oppose Raghoba's march to Pune, a force of 3,900 men was ordered to leave Bombay. The military command was given to Colonel Egerton, but all negotiations were to be carried on by Messrs. John Carnac & Thomas Mostyn who accompanied the force. On the 25th of November the first division under Captain Stewart took possession of the Bor pass and of the village of Khandala. Colonel Egerton, with the second division, seized Belapur, and on the 26th November, encamped at Panvel. On the 15th December the whole army reached Khopivli or Campoli (Khopoli), at the foot of the Bor pass. Here though they heard that the ministerial troops were gathering to bar their passage to Pune, they remained till the 23rd of December spending the time in making a road for the guns up the Bor pass. Meanwhile the Maratha horse ranged in large bodies between Khopivli (Khopoli) and Panvel, and caused much annoyance to the camp. To add to their misfortunes, Mr. Mostyn, who alone had a thorough knowledge of Pune affairs, fell sick and returned to Bombay where he died on the 1st of January. Colonel Egerton's health also gave way. He resigned the command and left for Bombay, but the country was so full of Maratha horse that he was forced to return. On his return he resumed his place in the committee, but was succeeded in the command by Colonel Cockburn.

English Defeat, 1779: When the English force reached the Deccan, contrary to Raghoba's assurance, they found that the country was full of hostile horse, and that none of the chiefs were inclined to

support Raghoba's cause. In skirmishes between Khandala and Karli, the British force was unfortunate in losing Colonel Cay and Captain Stewart, two of its best officers. When they reached Talegaon eighteen miles west of Pune on 9th January 1779 the town was in flames and there was a serious scarcity of supplies. A council was called, and in spite of all that the ablest officers could urge, the majority determined to retreat. The retreating force was soon surrounded by Maratha horse, and but for the courage and skill of Captain Hartley who commanded the rear guard, the greater part of the second division must have been destroyed. At Vadgaon, about four miles west of Talegaon and twenty east of Khandala, a second council was called and the majority agreed that the troops could not stand another day of such fierce fighting. Accordingly, on the 15th, they entered into treaty with Nana Fadnavis and Shinde. Nana Fadnavis made the surrender of Raghoba a preliminary to any agreement. But the English were spared the dishonour of giving him up as Raghoba had already placed himself under the protection of Shinde. Disappointed of the object he had most at heart, Nana declared that orders must be sent to Colonel Goddard to conduct his detachment back to Bengal, and that the English must surrender all the Maratha territory they had acquired including Salsette and Thane and that until the lands were handed over the army must remain at Vadgaon. The negotiations with Shinde were more successful. On the promise of the cession of Broach, he arranged that the army should be released, and they retired to Bombay guarded by the troops they had been accustomed to see flee before them. In Bombay, joy at the return of the army was lost in the shame of the terms to which its leaders had submitted. At the council regret and recriminations were silenced. "Our first duty", said Governor Hornby (29th January), "is to retrieve our affairs, our next is to inquire into the cause of failure." He praised the courage of the army, blamed the commanding officers, and advised Colonel Egerton and Colonel Cockburn to abstain for the present from military duty. For his skill and courage in command of the rear guard he promoted Captain Hartley to the rank of Lieutenant-Colonel. As Messrs. Carnac & Egerton had no authority to conclude a treaty, he held that the convention of Vadgaon was not binding. As regards future dealings with the Marathas, he (19th February) gave his opinion that the power in Pune was not in the hands of Nana but in the hands of Shinde, that Shinde was opposed to a French alliance and had shown himself friendly to the British, and that the British should make every effort to conclude an agreement with Shinde. As Raghoba was now a puppet in Shinde's hands, no further attempt should be made to raise him to power. The main objects of the English were to keep the French and Nana from any share in the government of Pune, and to preserve for

the Company the territory they then held. Nana was told that Messrs. Carnac & Egerton had no power to conclude a treaty, and that the English repudiated the Vadgaon convention. An attempt was made to open negotiations with Shinde. But Hornby had over-estimated Shinde's goodwill to the English. The Marathas insisted that the terms of the Vadgaon convention should be carried out, and that Salsette and the Gujarat territories should be ceded. To enforce their demands preparations were made for attacking Salsette, but precautions prevented the attack, and the safe arrival of Colonel Goddard at Surat, on the 25th of February, changed the face of affairs.

On Colonel Lewis' death on the 3rd of October, Colonel Goddard succeeded to the command of the army in Bundelkhand, and in spite of great difficulty and danger, led his men through Bhopal and Hoshangabad to the banks of the Narmada, which he reached on the 16th of January 1779. His instructions were to act as the Bombay Government advised, and his advice from Bombay was to push on to Junnar. On the 24th of January he received a letter from Mr. Carnac, dated the 11th telling him that matters had changed and advising him to give up Junnar and to march either to Bombay or to Surat, or if he was not strong enough to do this, to stay in Berar. Colonel Goddard pushed on and reached Charvah, opposite Burhanpur on the 30th of January. On the 2nd of February he received a letter from Mr. Carnac and Colonel Egerton, dated Khopivli the 19th of January, telling him not to act on their letter of the 16th as on consideration, they found that they had no power to give the orders which that letter contained. No letter dated the 16th had been received. But the probability that the Bombay force had met with a heavy disaster led Goddard to press on Surat. On the 9th he received Mr. Carnac's letter of the 16th of January ordering his return to Bengal. After this the march was carried on with such spirit that Surat was reached on the 25th of February, 300 miles, much of it wild and rugged in nineteen days.

Negotiations with Poona, 1779: On hearing that Colonel Goddard was safe in Surat the Supreme Government made him their minister to treat with the Marathas. The treaty of Purandar was to be renewed, provided the Marathas agreed to withdraw claims based on the Vadgaon convention and never to admit French forces into their dominions. At the request of the Bombay Government, Goddard visited Bombay on the 15th of March 1799. He agreed with the Bombay Government that no steps should be taken till a further letter was received from the Supreme Council. He then returned to his army at Surat. On the 29th of May he wrote to the Poona Court telling them that he had been charged with negotiations at Poona, and expressing the wish of the Supreme Council to conclude a lasting treaty with the Marathas.

In the struggle for power between Nana and Shinde, Nana was most anxious to gain possession of Raghoba. In case Nana might succeed, Shinde sent Raghoba under escort to Burhanpur, and on the way, Raghoba, suspecting that he would be thrown into confinement, escaped with a body of troops to Gujarat, and threw himself on the protection of Colonel Goddard. Goddard agreed to protect him, and, on the 12th of June, Raghoba joined the English camp. During the rains, negotiations went on between Colonel Goddard and the Poona Court. But as the Marathas claimed the cession of Salsette and demanded the surrender of Raghoba no advance was made. At the close of the year Goddard visited Bombay. Mr. Hornby proposed that the British should form an alliance with the Gaikwad and attack the *Peshwa's* territory. This proposal was approved by the Supreme Government, and four companies of European infantry and two battalions of sepoys, under Colonel Hartley, were sent from Bombay to help Goddard in Surat.

On the 1st of January 1780, Goddard marched from Surat, took Dabhoi, and agreed with the Gaikwad to divide the *Peshwa's* Gujarat possessions, the Gaikwad keeping the north and the British the south. Ahmadabad fell on the 15th of February, and the success was followed by the defeat of part of Shinde's army. At the request of the Bombay Government, Hartley was ordered from Baroda to Bombay on the 8th of May. This reinforcement was much wanted in the Konkan, because large parties of Marathas had descended through the *ghats* and completely devastated the environs of Bombay. To prevent the Marathas cutting off Bombay supplies, small bodies of troops had been posted at different parts of the Konkan. The English attempted to surprise the important islands along the Bombay coast but they could not succeed against their heroic defence by Visaji Pant Lele. However four European subalterns, in charge of two companies of sepoys, took post on one of the Sahyadri passes, and another force under Captain Richard Campbell seized Kalyan, making a sudden dash against it on 11th May. Enraged at the loss of Kalyan, Nana Fadnavis despatched a large force who took the British post on the Sahyadris, and on arriving near Kalyan, sent a message to Captain Campbell demanding the surrender of the town. Campbell told them they were welcome to Kalyan if they could take it, and made a spirited defence. A Maratha assault was planned for the 25th of May, but Colonel Hartley arrived, and on the night of the 24th surprised the Maratha camp, pursuing them for miles and killing a great number. During the rest of the fair season the British remained unmolested in the Konkan. Shortly before the relief of Kalyan the bravery and skill of Lieutenant Welsh had (23rd April) gained a great advantage to the British, by the capture of the three forts of Parnera, Bagvada and

Indragad, on the borders of Gujarat and the Konkan. After the beginning of the rains the Marathas attacked the different posts in small parties, but Kalyan was well garrisoned and was not molested.

On the third of August, the night on which the fort of Gwalior was surprised by Captain Popham, Captain Abington marched about ten miles south from Kalyan, and attempted to surprise the important fort of Malanggad or Bawa Malang. He secured the lower hill but the garrison were able to retreat to the upper fort, and its mass of sheer rock defied assault. Meanwhile the Bombay Government were hard pressed for funds. They had looked for help to Bengal, but the whole strength of Bengal was strained to meet Haidar Ali's attack on Madras. Bombay had no recourse but in its own efforts. The only means of raising a revenue was to over-run the Maratha territory as soon as the rains were over. With this object Goddard was asked to besiege Bassein, and early in October, five battalions were placed under Colonel Hartley, with orders to drive out as many of the Maratha posts as possible and secure the rice harvest. He was to arrange his movements so as to hold the country between the Sahyadris and Bassein, and prevent the Marathas from strengthening that fort. Colonel Hartley's first service was on the 1st of October, to relieve Captain Abington whose retreat from Malanggad to Kalyan had been cut off by a force of Marathas. The relief was completely successful and was effected with little loss. The troops pursued the Marathas to the Bor pass and enabled the Bombay Government to gather the greater part of the Thana revenue. Goddard arrived before Bassein on the 13th of November. On account of its strength he determined to attack by regular approaches, and completed his first battery on the 28th of November. The Marathas strained every nerve to recover the Konkan and relieve Bassein. Large bodies of troops were hurried down, and Colonel Hartley, after a month's fighting, was forced to retire towards Dugad about nine miles east of Bassein. Finding that they could not succour Bassein, the Marathas determined to destroy Hartley's army. On the 10th of December upwards of 20,000 men thrice attacked the Bombay division in front and rear, but each time were repulsed with slight loss though two of the slain were officers. On the eleventh the attack was repeated with heavier loss to the British, including two more officers. During the night Hartley fortified two heights that covered his flanks. Next morning at day-break the Marathas attempted a surprise. But they were met with so deadly a fire that they were forced to retire with the loss of their leader Ramchandra Ganesh who had marched from Poona to the succour of Bassein who was slain by a stray shot in the morning fog of 12th December while camping on the hill of Vajreshwari and trying to capture Colonel Hartley alive,

and of Signior Noronha, a Portuguese officer, who was wounded. As succour could come in time and as the garrison was hard-pressed Visaji Pant, the commandant of Bassein, surrendered Bassein to Goddard on the same day after the battle of Dugad. Though Bassein had fallen, Goddard was detained for about a month (18th January 1781) by the island fort of Arnala about ten miles north of Bassein.

Haidar Ali's success in Madras made the Supreme Government anxious to come to terms with the Marathas. In the hope that a show of vigour might make the Marathas more willing for peace, Goddard pushed to the foot of the Bor pass, his advanced party forcing the pass on the night of the 8th of February and encamping at Khandala, while Goddard, with the headquarters, remained below at Khopivli (Khopoli). This movement proved a failure. Nana Fadnavis was in no way affected by it. He refused to treat with the British unless the treaty included his ally Haidar Ali, and he sent a force of 12,000 men to cut off Goddard's communication with Panvel. On the 15th of March the Marathas attacked a convoy of grain near Chauk and caused severe loss. Goddard proposed to make a fort on the Bor pass and Mr. Hornby proposed to garrison Rajmachi, but neither suggestion was carried out and Goddard prepared to return to Bombay. Nana kept on sending troops into the Konkan, and held the country between Khopivli (Khopoli) and Panvel in such strength that a convoy, sent by Goddard for grain, was unable to return from Panvel without the help of every disposable man from the Bombay garrison, or without the loss of 106 men killed and wounded. On the 19th of April Goddard brought his guns and baggage from the top of the Bor pass and prepared to march towards Panvel. Every movement was watched by three great bodies of Maratha horse. There were 15,000 men at the foot of the Kusr pass, 12,000 near Bhimashankar, and 25,000 at the top of the Bor pass. On the 20th the moment that Goddard began his march, the Deccan force poured into the Konkan and captured much of his baggage. On the 20th Goddard moved seven miles to Khalapur, and next day seven miles to Chauk. On the way his loss was severe, the Marathas attacking the rear, assailing the front, and keeping up a steady fire from behind rocks and bushes. On the 22nd the British halted at Chauk. Early in the morning of 23rd, the baggage was sent ahead and some distance was covered before the Marathas came up. Then the attack was so severe that Goddard made a show of pitching his tents and the Marathas withdrew. The army reached Panvel on the evening of the 23rd April without further annoyance, but with the loss of 466 killed and wounded, of whom eighteen were European officers. The Marathas considered Goddard's retreat as one of their greatest victories. From Panvel part of Goddard's army was drafted to Madras; the rest were moved to Kalyan and there spent the

rains. A large Maratha force was sent towards Gujarat and their garrisons strengthened.

Treaty of Salbai, 1782: During the rains (June-November 1781) the Bombay Government were extremely hard-pressed for money. Several schemes for carrying on the war on a large scale had to be set aside for want of funds. During the next fair season defensive operations continued in the Konkan. But the great power of Haidar Ali made peace with the Marathas so important that, at last, on the 17th May 1782 the treaty of Salbai was concluded. One of its chief provisions of the treaty was the restoration of all places including Bassein conquered from the Marathas since the treaty of Purandar in 1775 and the retention of the island of Salsette and the smaller ones near Bombay by the English. This reduced the British possessions in the north Konkan to Bombay, Salsette and the three small islands of Elephanta, Karanja and Hog Island. Bassein had to be given up, but from Maratha delay in completing the treaty it was not actually transferred till April 1783. About the time when the treaty of Salbai was concluded, the Marathas confirmed the Jawhar chief in the small territory which they had left him.

During the disturbances that ended in the treaty of Salbai the district had suffered severely. In February 1781, every village, hut and stack, on the high road between Kalyan and Khopivli (Khopoli), had been burnt, and most of the people had fled. Even the rich coast tract seems to have become impoverished, as the loss of seventy-five carts and forty-four oxen is said to have caused great distress to the district of Bassein. The scarcity of money in Bombay made a liberal policy in Salsette impossible. The island showed few signs of improvement. Mr. Forbes, who re-visited the Kanheri caves in 1783, was astonished to find that, during the ten years Salsette had been under the Company, tillage had not spread. The gentle hills and valleys in the centre of the island were still in their former state of wildness. In the Maratha districts, on the way to the hot springs of Vajrabai, about twelve miles north of Bhiwandi, were fields of rice, pulse and a little tobacco. Mango-trees abounded and there were a few lime-trees, plantains and guavas round the Vajrabai temples. Grass grew to a surprising height and there was abundance of flowers and fragrant herbs. The people were lazy, living from hand to mouth, partly because industry was never the character of the Maratha, partly from the unhappy constitution of the government and the confused state of the country. Four years later, in the rains of 1787 (15th August-11th September) the Polish traveller Dr. Hove made several botanical trips through Salsette and the neighbouring mainland. Salsette showed signs of great decay; it was thinly peopled and poorly tilled. From Varsova to

Thana, Hove did not find a single village or any signs of tillage. There was teak of an amazing height and thickness, and there were remains of churches, chapels and large buildings all pinning in decay. Near Thana there was some rich rice tillage and at Dharavi, in the west, rice, sugar-cane and vegetables were grown. But in the south-east, while there were remains of wells and marks of former tillage, there was large waste area of level land fit for sugar-cane and rice. The produce of the island was not enough to maintain the garrison and town of Thana. The Maratha mainland was even more deserted than Salsette. Between Thana and Vajrabai there was not a single village and travelling was dangerous from tigers, of whom five were seen in one day, from buffaloes who pursued Europeans like enemies, and from natives who were such enthusiasts for their religion that they looked on Europeans as the lowest on earth and did not scruple to kill them.

1788: In the January following (1788) Hove travelled down the west coast from Surat to Bassein. The Thana part of the country was well-watered and on the whole fertile. The hills yielded the finest teak and the valleys high grass, and on some of the flats, near Nargol grew a luxuriant wild sugar-cane. The extreme north was very wild, the hills were covered with unbroken forest, and the valleys were overgrown with grass. Further south, between Umbargaon and Dahanu, the ruggedness disappeared, the coast lands were plain and rich, and the hills yellow and bare. South of Dahanu, almost the whole way to Bassein, the coast-strip was rich and well-tilled with rice, sugar-cane and plantains. During the day the thermometer was never less than 89, but the nights were unexpectedly cold, small pools of water being frozen over near Maroli on the night of the thirteenth January. The valleys were full of brush-wood and bastard poon. *Sterculia foetida*. Along the coast between Umbargaon and Dahanu, were large groves of brab-palms, and further north, near Maroli, the country abounded in teak of a prodigious size, several of the trees measuring over twelve feet in girth and not less than eighty feet high. In the rich coast-strip between Dahanu and Bassein, rice, yams and turmeric were grown. There were also sugar-cane gardens with plantains and pomegranates, the canes very flourishing, fifteen feet high and thick in proportion. In the north there were many tigers. Not a day passed that several were not started. Some of the villages had herds of cattle hunch-backed and small, miniatures of the Gujarat oxen, and so moderate in price that any number might have been bought at Re. 1 a head. There were some sheep with wool as soft and white as Gujarat cotton. Except the rich coast the country was poorly peopled and badly tilled. From the north to Bassein, Hove did not see more than thirteen villages. The

people were dark, slender, active and long-lived. They ate all animal food except the ox, and drank liquor freely. Their winter clothing was of wool. Their villages, especially in the hills, were small, of not more than thirteen families. They were pinning in poverty and destitute of comfort. Though the country was so rough, the coast-route was passable for carts. Hove had a horse and two carts, and he talks of hundreds of hackeries, between Umbargaon and Dahanu, coming to load jars of palm-juice.

The country seems to have been free from robbers. All along the route, especially in the north, were posts of mounted guardsmen who lived in small thatched huts, tilled a plot of land, and were armed with a sabre, a spear and a match-lock. One of their chief duties was to give alarm on the appearance of an enemy. They stopped travellers, and if they had no passes, took them to the chief officer of the district, who closely examined them. There were also posts at every ferry, and no one could pass without heavily feeing the head of the watch. The Maratha officers pillaged openly and forced travellers to give whatever they chose to ask. Gujarat, though full of robbers, was less troublesome and cheaper to travel in.

In 1783 Forbes found Bombay greatly increased since 1774. The troubles on the mainland had driven people to Bombay and a flourishing commerce had drawn others. Provisions and supplies were plentiful, but prices were high, double what they used to be. The island was almost covered with houses and gardens. It would soon be a city like Surat or Ahmadabad.

In 1790 Thana, with other parts of Western India, suffered from a failure of rain and from famine. In 1793 a great part of Salsette appeared to be lying waste. But an attempt had lately been made to grow sugar-cane and indigo and Dr. Stewart from Bombay was superintending the infant plantations. Shortly after this a few large estates were granted to British subjects with the view of improving the country. In 1801 a permanent settlement was offered to the holders of land in Salsette, but only four land-holders accepted the offer. During the last fifteen years of the eighteenth century, trade especially the Chinese cotton trade, had brought much money into Bombay. The prosperity and growth of the city improved it as a market for field-produce, and, by the opening of the Sion causeway and the abolition of customs dues (1798-1803) Salsette was able to take full advantage of the increased demand.

The next few years after the treaty of Salbai saw hectic Maratha activity in the north under Mahadji and concerted action by the Marathas and the Nizam against Tipu. In June 1790 the Marathas, the English and the Nizam formed the tripartite alliance against Tipu

resulting in the latter's defeat and submission in February 1792. Cracks now began to appear in the Maratha-Nizam relationship on the question of payment of *chauth*. The Nizam flatly refused to pay and hostilities started. The Nizam suffered a crushing defeat at the hands of Marathas in the battle of Kharda.

With the death of the *Peshwa* Madhavrao II in 1796, began a time of unparalleled confusion and trouble, which lasted till the conquest of the country by the British. Of the three sons of Raghunathrao, Bajirao aspired for the *Peshwaship*. Nana Fadnavis favoured the other son Chimnaji. Bajirao won over Daulatrao Shinde to his side. Nana however came to a compromise with Bajirao accepting him as the *Peshwa* and agreeing to work as his principal minister. This enraged Shinde. Fearing danger to his life Nana fled to Mahad and sought the help of the Nizam agreeing in return to surrender all the acquisition of Kharda. Nana also won over Bajirao and Maratha chiefs to his side thus turning the tables upon Daulatrao. Nana left for Poona and reached it on 25th November 1796. Bajirao was proclaimed as *Peshwa*. In August 1797, Tukoji Holkar died creating disputes for succession among his four sons. This led to the resumption of hostilities between Shinde and Holkar, with Shinde supporting Kashirao, one of the sons of Tukoji. In a stray encounter, Malharrao, another son of Tukoji, was killed. The other two sons fled to jungles and took to a life of brigandages devastating Shinde's territory. They laid waste the Khandesh Narmada districts and ravaged the hill country between Narmada and Tapi. The feuds which had erupted into the Holkar family did not spare the Shinde family also, the three widows of Mahadji Shinde demanding independent maintenance from Daulatrao. They marched on Poona and civil war ensued on the outskirts of Poona. Nana Fadnavis agreed to seek a compromise but insisted on Daulatrao Shinde leaving for the north. To this Bajirao could not agree and the ladies' affair remained unsettled. They started depredations and two of their followers Yeshwantrao Shivaji and Balaji Krishna started depredations in the *Peshwa's* districts of Nasik and Khandesh. Now Yeshwantrao Holkar joined the war against Daulatrao making common cause with the ladies. On March 13, 1800 Nana Fadnavis died. Daulatrao, on hearing of the depredations of Yeshwantrao, left Poona and moved to the north. But Yeshwantrao moved like lightning. The whole region between Khandesh and the Krishna became one general scene of anarchy and chaos. To crown it all, Bajirao put to death Vithoji, the brother of Yeshwantrao, who had declared Bajirao as incompetent and proclaimed himself as the agent of Amritrao. In 1802 Yeshwantrao Holkar resolved to avenge the cruel death of his brother in Poona at the hands of the *Peshwa* and marched towards the south in the company

of his Pendhari allies, a band of free-booters under the leadership of Amirkhan and Ahmedkhan. Crossing Malegaon and Chandwad the Pendharis under Ahmed met Narsinh Vinchurkar on behalf of the *Peshwa* at Mukhed. In the course of the battle Ahmed's army was defeated and Ahmed was killed. Narsinhrao now proceeded towards Poona where he had been urgently invited by the *Peshwa* for his help. In his absence, Holkar's army reached Vinchurkar's *jahagir*, burnt his palace at Vinchur, plundered many of his villages and destroyed the standing crops. The Pendharis, under their leaders, followed and completed the destruction. The result was a total failure of food, with millet at less than a *seer* for a rupee. The famine lasted for a year and was at its height between April and August 1804. Large numbers moved to Gujarat. Of those who remained, from 7,000 to 9,000 were believed to have died, and many of the survivors had to live on wild fruit and vegetables. Cow's, buffalo's and even human flesh are said to have been eaten. The *Peshwa's* government imported grain from the coast and freely remitted revenue. Private charity was also active. After two or three years grain prices fell to their former level and most of the people returned. But some of the villages which then fell waste were for a long time not brought under tillage. The country also suffered severely from the raids of the Deccan Kolis. A gang of over 1,000 strong divided into two or three parties, robbed villages at their leisure, shared the spoils and disappeared to their homes. The guards posted in different places among the hills could do nothing to stop them. It may be mentioned here that Yeshwantrao on his march to the south defeated Daulatrao who now offered to negotiate. Yeshwantrao refused but agreed to the directions from Bajirao to take up his residence at Thalner. Yeshwantrao demanded the redress of his grievances from Bajirao but the latter refused. In addition he confiscated the estates of Holkar. Now Shinde moved from north to fight Yeshwantrao. This exasperated Yeshwantrao who moved south. He again wrote to Bajirao to mend the wrong. Bajirao followed delaying tactics hoping for the arrival of Shinde's troops. Yeshwantrao realised tactics and moving into Khandesh he devastated it. He then proceeded towards Baramati and again wrote to Bajirao in cordial terms. Bajirao still did not relent. On 25th October 1802 Yeshwantrao overwhelmed Shinde.

After this victory of Yeshwantrao Holkar, Bajirao *Peshwa* retired to Mahad in south Kolaba. From Mahad, followed by Holkar, he fled to Suvarndurg; finding Suvarndurg ruined, he sailed to Chaul, and after a few days, delayed by head winds, landed on the 16th of December at Manori in Salsette, and reached Bassein on the seventeenth with thirty followers, where he remained for six and

a half months practically under British protection to prevent himself from falling into the hands of Yeshwantrao Holkar. The latter did his best to persuade the *Peshwa* to return but to no avail. On his arrival at Bassein Bajirao was met by Colonel Close, the British agent at Poona. The terms of a treaty, under which the British should uphold the power of the *Peshwa* had already been considered. Discussion was renewed on the 18th of December and concluded on the 31st. Under the terms of the treaty then framed, which is known as the treaty of Bassein, the English agreed to guard the *Peshwa's* territory against all enemies, and the *Peshwa* agreed to have no dealings with any European nation but the English. A subsidiary force of 6,000 infantry, with the usual proportion of field pieces and of European artillery-men, was to be furnished by the English and stationed in the *Peshwa's* territory. For the support of this force, the *Peshwa* was to cede to the English districts yielding a yearly revenue of Rs. 26,00,000. It was also arranged that the *Peshwa* was to maintain a force of 5,000 cavalry and 3,000 infantry with a due proportion of artillery, and that he should enter into no negotiations without consulting the British Government. To ensure the *Peshwa's* safety a field detachment was sent to Bassein, and a considerable stockade of palmyra trees was raised to defend the Sopara bridge. Bajirao's action in accepting British protection produced throughout Maharashtra a general resentment and unrest, unsettling peoples' minds and their normal avocations. The Berads, the Bhils, the Ramoshis, the Kolis, the Pendharis and bands of unemployed roving classes, began their traditional depredations making life insecure everywhere. Maharashtra looked in vain for a leader to appear on the scene and end this anarchy and confusion. When Bajirao learnt at Bassein that another *Peshwa* was being set up in Poona, he became furious against Amritrao and ordered his palace at Bhivandi, not far from Bassein, to be plundered and destroyed. Henceforth Amritrao became his worst enemy. The *Peshwa* remained in Bassein till the 27th of April (1803). Then, escorted by a British force of 2,200 men, including the 78th Regiment, part of the 84th and some artillery he moved to Kalyan, and after staying a week at Kalyan, marched to Poona by the Bor pass.

In the meanwhile Shinde decided a plan of action against the English in concert with the Bhosle. A request was made to Holkar to join the league against the English but it failed to evoke the required response due to the failure of Daulatrao to satisfy his terms. The English now declared war against Shinde and defeated him in the battles fought at Asai and Adgaon in October and November 1803, respectively. The power of Shinde was so crippled that he begged for

subsidiary force. Yeshwantrao on his part was continuing his predatory activities in the north. The English now declared war upon him. The English occupied all his possessions including Chandwad, Lasalgaon, Dhodap, Galna and his share of Khandesh. The war with the Holkar was protracted but ultimately in 1805 he sued for peace. The treaty known as the Treaty of Rajghat was concluded on 24th December 1805.

The issue now became a general one of a conflict between the English and the Maratha State. The English now decided to deal separately with Shinde and Holkar. General Wellesley approached Poona informing Holkar that he would not be disturbed if he withdrew from Poona. Finding no support from other Maratha chiefs, Yeshwantrao left Poona for the North. The English installed Bajirao at Poona. In 1803, Sir A. Wellesley advanced on Poona to save the city from destruction by Amritrao, the adopted brother of Bajirao. Amritrao retired to Sangamner, ravaging the country, and then turned to Nasik, defeated a body of troops commanded by Raje Bahadur of Malegaon in the interest of Bajirao, sacked Nasik and remained in the neighbourhood till the end of the war, when he made terms with the English. On his coming to terms, all Holkar's possessions except Chandwad, Ambar and Shevgaon, were restored to him, and these also were given back within two years.

During the famine years of 1803 and 1804 there was much distress in Thana. The country had not suffered from the ravages of Holkar, and therefore the famine pressed less heavily than above the Sahyadris. But numbers of starving people came from the Deccan and at Panvel and other places the mortality was heavy. Ten years later the famine of 1811 and 1812, which wasted Marwad, Gujarat, Cutch and Kathiawad, extended to Thana. Thana does not seem to have suffered from the plague of locusts, which in Marwad and north Gujarat destroyed the harvest of 1811. But as was the case further north, the rains of 1812 seem to have failed or nearly failed on the Thana coast, and in addition to local distress, the country was covered with bands of famine-stricken strangers from Marwad and Gujarat. There was known to be food and wealth in Bombay, and all the ferries between the mainland and the island were crowded with half-famished people streaming in converging lines from all parts of the country. Bombay held a supply of grain enough to last its own population of about 2,00,000 for fifteen months. The question arose whether strangers should be prevented from landing and grain prevented from leaving the island. After much debate, it was decided that no attempt should be made to keep refugees from landing on the island, and that grain merchants should be left free to export grain to places where the

famine was more severe. The grain merchants were assured that they would not be hampered in disposing of their stocks, imported freely, and Bombay became the granary of Western India. As grain continued comparatively cheap in Bombay, crowds flocked to it from the famine-stricken north. It was estimated that about 20,000 strangers found their way to the island. The wharfs and roads were lined with crowds of wretched half-starved objects ; the eastern or land side of Bombay was strewn with the dead and dying. Much was done to help the strangers. English and local committees were appointed to buy rice. Huge boilers were provided in a cocoa-palm grove about half a mile from the fort, and care was taken to provide cooks for each caste. As pestilence accompanied the famine, great hospital sheds were built outside of the fort. In spite of these efforts to save the famished strangers, the death-rate rose from about fifteen to thirty or forty a day and sometimes to over a hundred. Backbay was lined by a row of funeral fires that never ceased to blaze night or day, and a few hundred yards from the beach was a long line of coasting vessels, laden with faggots and billets for the funeral piles.

For fifteen years (1803-1817) the English guarantee secured peace over the whole district, and except for an occasional Pendhari raid, fair security to person and property. Trusting to English support, the *Peshwa* failed to keep up his share of the subsidiary force, allowed his forts to fall to ruin, and paid attention to nothing except to the accumulation of treasure. Authority was handed to the revenue farmers and no complaints were listened to. The farmer had no motive to be lenient. His terms of power were most uncertain. At any time a higher bid might put an end to his contract and if he failed to pay, his property was confiscated and himself thrown into prison.

Trade, 1800-1812 : The Thana ports shown in the map in Milburn's *Oriental Commerce* (1800-1812) are Daman, Dahanu, Sirgaon, Agashi, Elephanta, Bassein, Versova, Bombay, Karanja, Kolaba and Chaul.

The Bombay trade-returns for the early years of the nineteenth century seem to show that the great development of Bombay, of which details are given later on, was accompanied by the revival of a considerable trade in the other ports of the Thana coast. The 1802 returns show a total trade between the Bassein port and Bombay and Surat valued at about three and a half lakhs of rupees, of which about two lakhs were exports and one and a half lakhs imports. In 1805 the total value of the trade had risen to about nine lakhs, of which four and a half lakhs were exports and four and a quarter lakhs imports. In 1815 it again fell to about seven lakhs, of which about three quarters were exports and three and a quarter were imports. According to Milburn, the Bassein trade during the five years ending 1806

averaged about nine lakhs of rupees, of which about five lakhs were exports and four lakhs were imports. The details for 1805 are :—under exports, piece-goods, grain, iron, sugar, cocoanuts, cocoa-kernels, betel-nut, dates, pepper, turmeric and treasure ; and under imports, grain, ivory, oil, timber, hemp, piece-goods and betel-nut.

In the beginning of the nineteenth century, the climate of Bombay, though healthy, was still somewhat treacherous, exposure to the land wind being followed by fever and frequently by the loss of the use of limbs. The charming island was intersected by beautifully macadamised roads long before that grand improvement was heard of in England. The fort or walled town was nearly a mile long and about a quarter of a mile broad. The fortifications were numerous and well planned, very strong to the sea but liable to be taken from the land by a broad deep ditch which could be filled at pleasure, making it one of the strongest places the Company had in India. Besides the fort, there were several redoubts in other parts of the island, especially one at Mahim. If properly garrisoned Bombay could bid defiance to any force that could be brought against it. The fort had five gates, two Marine Gates on the south, the Apollo and Church Gates to the west, and the Bazar Gate to the north. Between the two harbour gates was the castle, a regular quadrangle well built of strong hard stone. To the west of the castle was the dockyard large, well planned, and full of stores. The dry dock had scarce its equal for size, and there was a rope-walk as long as any in England, except the walk in the King's Yards at Portsmouth. In the centre of the fort was an open green, where, in the fine weather, were packed bales of cotton and other merchandise. Round the green were many large well-built and handsome houses. To the left of Church Gate street, looking west from the Green, were close together, the commodious and airy church and Government house, and on the right, the theatre a neat handsome structure, and behind the theatre, the bazar very crowded and populous where the native merchants chiefly lived. Some of the houses were large with wooden pillars in front supporting wooden verandas. In February 1803 a great fire destroyed three-fourths of the bazar, with the barracks, the custom-house and many other public buildings. Had not many houses near the castle been battered down with artillery, the whole town would have been destroyed. The private loss was estimated at about fifty lakhs of rupees. After the fire the town was re-built and much improved. In 1813 the buildings within the fort were valued at one crore and five lakhs of rupees, and their yearly rental estimated at Rs. 5,27,360.

To the north of the fort was the Esplanade 800 yards broad, and since 1802 clear of huts. Beyond the Esplanade, hid among cocoa

palms, was the Black Town. The improvements in re-building the fort and the clearing of the Esplanade had driven the poor to settle in the Company's salt rice land. This was scarcely recovered from the sea, a low muddy tract, a shallow lake during the rainy season. On Colaba there was a light-house and a signal station, barracks and many delightful villas. In 1812 the number of houses (apparently in the island, but this is not clear) was about 20,000, and the number of people 2,35,000, of whom 1,60,000 were fixed and 60,000 migratory. The Europeans had bungalows or villas, and all sorts of country-houses and some very splendid retreats from the bustle of business ; the rich natives owned large houses, the children living in part of the house even after they were married ; the poor classes lived in small huts thatched with palm-leaves, or, as at present, were crowded into great buildings or *chals*, a hundred or even 300 persons being stowed under one roof.

Bombay was "a jumble of nations". Besides Europeans, it had people from almost every Asiatic nation, Parsis, Muhammadans, Gentoos, Arabs and Roman Catholics. Among European merchants there were five houses of agency. The agency business alone did not pay, as the profits were absorbed by interest in cash balances and by establishment charges. Without trade these houses could scarce gain a subsistence. They allowed nine per cent for money deposited in their hands, and their command of capital enabled them to embrace every opportunity that occurred. The late wars had offered great and uncommon openings, and specially ship-owners had made large and sudden fortunes. The return of peace would drive merchants back to their former pursuits, the Indian and China commerce. Besides the five houses of agency there were four European wine merchants and shop-keepers. Parsis, active, industrious and clever people, possessed of considerable local knowledge, rank next to the Europeans. They lived in the north of the fort, and were not remarkably cleanly in their domestic concerns or in the streets where they lived. Many of them were rich, and each of the European houses of agency had one of the principal Parsi merchants concerned with them in their foreign speculations. They were the brokers and Banias of the Europeans. There were sixteen leading Parsi firms and two Parsi China agents. In addition to their success as traders the Parsis had a monopoly of the dockyard and had almost entirely made Bombay their own. Hardly a house or a foot of land belonged to any one else. Besides the Parsis there were three Portuguese, four Armenian and fifteen Hindu firms possessed of great property and men of much integrity. Finally there were four firms of Bohoras or Muhammadan Jews, who carried on great trade with Gujarat and other places to the

north. The people were orderly. During the seven years ending 1811 there was only one capital punishment.

Bombay had suffered long from the dearness of provisions. Full advantage was not taken of the conquest of Salsette, till in 1802, Governor Duncan made the Sion causeway and took off import dues. This was of "infinite service" to the farmers and gardeners who supplied the markets. Within ten years Hall could venture to say that there was no spot on the earth's surface where the means of subsistence were cheaper or in greater variety and even profusion.

The chief product of Bombay was its ships. There were six firms of builders all of them Parsis who had an absolute monopoly of the docks. In the first ten years of the century many merchantships of from 600 to 1,300 tons had been built for the country trades and for the service of the East India Company. In beauty of construction, excellent workmanship and durability, they were superior to any class of merchantships in the world. Bombay was the first place out of Europe, where a ship of the line was built. For the skill of its naval architects, the superiority of its timber, and the excellence of its dock, Bombay might be considered of the first importance in the British empire in India.

Bombay Trade, 1800-1810 : Though Bombay did not from its own products furnish any considerable article of export, or even food enough for its people, all European and Asiatic commodities could be procured in it. It was the emporium of Persia, Arabia and the west of India. Besides this, Bombay had a great trade with England. Of the lists of European and other commodities suitable for the British Presidencies those for Bombay were the most extensive. There was scarcely an article manufactured in England that was not taken to Bombay in considerable quantities. During the early years of the nineteenth century, of the two main branches of trade, the Asiatic or country trade, so called because it was carried in Indian ships and with Indian capital, was entirely in the hands of private persons. The trade with England was carried on partly by private merchants. Of the whole trade with England the Company imported into Bombay about the same amount of treasure as the private traders, and under merchandise imported and exported half as much again as private traders. During the five years ending 1806 imports averaged 412 lakhs, of which 92 lakhs were treasure ; and exports averaged 318 lakhs, of which 36 lakhs were treasure.

In 1805, of the whole trade valued at 741 lakhs of rupees, 411 were imports and 330 exports. Of the whole amount, 443 lakhs or 59·64 per cent were with India, and 253 lakhs or 34·14 per cent with other parts of Asia and East Africa ; 3 lakhs or 0·40 per cent were with America ; and 42 lakhs or 5·66 per cent with Europe. Of the Indian

trade about 39 lakhs, 18 lakhs of them imports and 21 lakhs exports, were with Thana ports ; about 208 lakhs, 100 imports and 108 exports, with Gujarat ; about 42 lakhs, 26 imports and 16 exports, with Cutch and Sindh ; about 54 lakhs, 14 imports and 40 exports, with the South Konkan ; about 25 lakhs, 18 imports and 7 exports with Malabar ; $1\frac{1}{2}$, $\frac{3}{4}$ imports and $\frac{1}{2}$ exports, with Ceylon ; $2\frac{1}{2}$, 2 exports and $\frac{1}{2}$ imports, with Coromandel ; and $70\frac{3}{4}$, 68 imports and $2\frac{3}{4}$ exports, with Bengal.

Of the 253 lakhs of trade with foreign Asia and East Africa, fifty lakhs, 29 imports and 21 exports, were with the Persian Gulf ; 41 lakhs, 26 imports and 15 exports, with the Arabian Gulf ; 5 lakhs, 4 imports and 1 export, with the Straits ; and 157 lakhs, 85 imports and 72 exports, with China. Of three lakhs of trade with America, 2 were imports and 1 export. Of the $42\frac{1}{2}$ lakhs of trade with Europe, $14\frac{1}{2}$ lakhs, 9 imports and $5\frac{1}{2}$ exports, were with Lisbon ; $1\frac{1}{2}$ lakhs, all imports of wine, with Madeira ; and $26\frac{3}{4}$ lakhs, 19 imports and $7\frac{3}{4}$ exports, with England.

The most important branch of the foreign trade of Bombay was with China. The basis of this trade was the export of cotton from Bombay. This export of cotton dated from about 1770, when a famine in China led the Chinese government to issue an edict ordering the cultivation of grain. Sometimes as much as 80,000 bales of 375 pounds each were sent in a year from Bombay to China. But in 1805 the golden days of the cotton trade were over. Scanty supplies and frauds had induced Madras and Bengal to compete, and had tempted the Chinese to grow their cotton at home. It was now a precarious trade.

The following table gives a general view of the trade of Bombay in 1805 :—

BOMBAY TRADE, 1805

Ports (1)		Imports lakhs (2)	Exports lakhs (3)	Total lakhs (4)
Thana ports	.. ..	18	21	39
Gujarat	.. ..	1,00	1,08	2,08
Cutch and Sindh	.. ..	26	16	42
South Konkan	.. ..	14	40	54
Malabar	.. ..	7	18	25
Ceylon	.. ..	$\frac{3}{4}$	$\frac{1}{2}$	$1\frac{1}{2}$
Coromandel	.. ..	2	$\frac{1}{2}$	$2\frac{1}{2}$
Bengal	.. ..	68	$2\frac{3}{4}$	$70\frac{3}{4}$
Total—India ..		2,35 $\frac{3}{4}$	2,06 $\frac{3}{4}$	4,42 $\frac{1}{2}$

Ports (1)		Imports lakhs (2)	Exports lakhs (3)	Total lakhs (4)
Persia	.. ..	29	21	50
Arabia and Africa	.. ..	26	15	41
Straits	.. ..	4	1	5
China	.. ..	85	72	1,57
		1,44	1,09	2,53
America	.. ..	2	1	3
Continent	.. ..	10½	5½	15½
England	.. ..	19	7½	26½
Total Europe	.. ..	29½	13½	42½
Total Private Trade	.. ..	4,11	3,30	7,41
Company's Trade	.. ..	3½	14½	17½
Grand Total	.. ..	4,14½	3,44½	7,58½

As in former times Hindus were settled for purposes of trade at great distances from India. In 1763 Niebuhr found 125 Banias in Sana in Yemen, who paid 300 crowns to live in the city; in Mokha there were 700 Banias, many of them considerable merchants and very honest men, and Rajputs and other Indians who were goldsmiths and mechanics. They were considered strangers as they went back to India when they made money. They suffered many mortifications. There were Banias also at Maskat where they were better-off, keeping their own law and practising their own religion. In the beginning of the nineteenth century in the Persian Gulf the Company's broker at Maskat was a Hindu who was so desirous of saving the lives of the bullocks that meat had to be brought on board clandestinely. In the Arabian Gulf the greatest part of the foreign trade in Mokha was in the hands of Banias who had partners in Aden. The Banias were safe to deal with because if one failed his companions paid. At Masuah on the west shore of the Red Sea the Banias were comfortable men of good property. Karamchand would receive a cargo, and considering himself responsible for the whole, would dispose of it to smaller people worthy of credit. The smaller people took it into the interior and in three months returned with value in other goods. Hindus were also settled in Batavia in Java. In 1750, Ramsing, a Cutch Hindu, went to Holland and became a skilful navigator and shipwright. In 1781, a Hindu of the name of Hariman, according to some accounts a Chitpavan Brahman and according to others a Prabhu, was sent on a mission by Raghunathrao to England. The best seamen

in India were to be found in Bombay. They came from the Gujarat, Kathiawar and Cutch coasts. They seem to have been both Hindus and Musalmans, but the most famous were the Muhammadan laskars of Gogha.

During the eighteenth century, especially since 1759 when the English were appointed Admirals of the Moghal fleet, much had been done to give security to vessels trading in the Arabian Sea. But the west coast of Kathiawar, Malvan in Ratnagiri, and Maskat in the Persian Gulf, remained centres of piracy till their power was crushed between 1810 and 1820.

Under British protection, in spite of Maratha exaction, Thana, like other parts of the *Peshwa's* possessions, greatly improved. By 1816 the *Peshwa* had amassed Rs. 5,00,00,000. Under the influence of his favourite Trimbakji Dingle he became estranged from the English, and busied himself in forming plans for again raising himself to be Head of the Marathas. For his share in the murder of the Gaikwad's envoy Gangadhar Shastri, Trimbakji Dingle was imprisoned in the Thana fort under the orders of the Governor-General. The guard was entirely composed of Europeans. Elphinstone objected to this arrangement on the ground that Thana being so near would afford the captive ample facilities for mischief outside. This came true because with the help of a clever Maratha Syce specially selected by Bajirao to serve with one of the British officers, Trimbakji made good his escape on 12th September 1816 in the darkness, and with the connivance and help of the *Peshwa*, devoted himself to raising the wild tribes of Khandesh and Ahmadnagar. During the next six months the *Peshwa* did his utmost to secure the support of the Maratha chiefs and of the Pendharis. As his hostility to the English was scarcely concealed, on the 6th of June 1817, the *Peshwa* was forced to enter into a fresh treaty. Under this treaty, which is known as the treaty of Poona, Bajirao acknowledged that Trimbakji Dingle was the murderer of Gangadhar Shastri, he bound himself to have no dealings with other states except through the British, and as he had failed to maintain them, he agreed that the English should supply his share (5,000 horse and 3,000 foot) of the subsidiary force, and that fresh lands should be ceded to enable the English to support this new contingent. Among the territories ceded under this agreement were the districts of Belapur, Atgaon and Kalyan, and the rest of the North Konkan to Gujarat.

Early in 1817, some months before the treaty of Poona was concluded, four bodies of Pendharis swept from the Deccan to plunder the Konkan. One body, six or seven hundred strong, was at Panvel, and either this or another force, advanced to Bhiwandi, but were prevented by the rivers from passing into the rich coast districts of Bassein and Mahim. From Bhiwandi they marched through Asheri

and Tarapur to the Portuguese frontier. The people of the richer villages fled to the forests, and next year in some places only a few had come back. After the rains (November 1817), when he openly broke with the English and attempted to crush their detachment at Poona, the *Peshwa* let loose on the Konkan Trimbakji Dingle's hordes of Bhils and Ramoshis. They held the Sahyadri passes and entered Kalyan, driving many of the people to take refuge in Bassein and Mahuli. The Bombay troops kept the country between Panvel and Khopivli (Khopoli). But the Bhils held the Bor pass and despatches from General Smith, then near Poona, to the Commander-in-Chief in Bombay had to be sent by Bankot. In December the *Peshwa* was close to the Nana pass and measures had to be taken to prevent his entering the Konkan. Bapurao Lambe, one of his supporters, took the fort of Kotaligad, about twelve miles east of Neral, but it was re-taken without loss by Captain Brooks on the 30th of December. In January 1818 Colonel Prother, with a force of 380 Europeans, 800 Native Infantry and a battering train, took the important forts of Karnala, Rajmachi and Koari. The acquisition of the north Konkan was completed by Captain Barrow's victory near the Kusr pass over a body of Arabs, Musalmans and Kolis. As the bulk of the people were friendly the districts did not require a strong garrison. Thana was maintained as a military station, and for some years, detachments were kept at Panvel (Kalyan), Bhiwandi and Bassein. Of the inland forts Captain Dickinson, who was sent to survey them, considered Asheri, Malangad and Mahuli impregnable, but from their isolated position useless. Of the Sahyadri forts Gorakhtagad near Murbad, Kotaligad near Neral, and Sidgad near Gorakhtagad, for a short time, were held by small detachments. The inner works of the rest of the inland forts were, as far as possible, destroyed. The coast-forts, of which Arnala and Tarapur were the chief, were in better order than the inland forts. They gave the people a feeling of security against pirates, and were allowed to remain untouched.

State of Thana, 1818: During the rains of 1818 two important prisoners were kept in the north Konkan, Chimnaji Appa, the *Peshwa's* brother at Bassein and Trimbakji Dingle at Thana. At the time of their transfer to the British the Thana district for miles round the forts had scarcely an inhabitant. The few people were almost without tools; there was hardly a craftsman even of the humblest description. In other parts the people were poor and number of villages were empty. The forests were held by Kolis, Bhils, Kathkaris and Thakurs who lost no chance of plunder. There were two exceptions to the general wretchedness, Kalyan whose villages were large and well-peopled and the country prosperous, and the garden of Bassein, where every inch of land was

highly tilled, much of it under sugarcane, garden crops and rice. From the Vaitarna north to the Damanganga was an excellent road, "perhaps for its length (73 miles) unequalled by any in the world". But the country had lately been pillaged by Pendharris, Salsette, though so long under British management, was a striking contrast to the rich garden lands of Bassein. In the south the valleys were well tilled, but the greater part of the island lay empty and waste, almost wholly covered with brush-wood. The revenue was about Rs. 21,50,000, and the population estimated at 50,000. The people were excessively fond of liquor, but so quiet and orderly that in 1813, for two years no native of the island had been committed for trial.

Since 1818 order was well preserved. The chief exceptions were the Koli gang robbers who continued to trouble the district till about 1830 ; a Musalman and Hindu riot in Bhiwandi in 1837 ; the alarm and disquiet of the 1857 mutinies ; and income-tax disturbance in Bassein in 1860 ; and two out-breaks of gang robberies in 1874 and in 1877.

During the first twelve years of British rule the hill country, both above and below the Sahyadris, was infested with gangs of Bhil and Koli robbers. Their headquarters were almost always in the Deccan, but their raids swept across the whole of Thana, and caused widespread discomfort and alarm. The leading spirit was one Ramji Bhangria, a Koli. For a time he was won from his wild life and placed in charge of the police of a sub-division. He proved an able officer, but resenting an order stopping his levy of gifts, he withdrew from Government service. At the same time the pay and allowances of other leading Koli families were reduced, and many of them were thrown out of work by the dismantling of the forts. In spite of general discontent, the presence of British troops prevented an out-break, till, in 1827, the Kolis learned that the Satara Ramoshis, who had been in revolt for three years, had gained all they had fought for. Judging that to show themselves formidable was the surest way of gaining redress, the Kolis, at the close of 1828, went out in revolt. Captain Mackintosh, who was put in charge of a body of police, found great difficulty in gaining news of their movements. In time he won over a certain number of Kolis, found the names of all persons likely to help the outlaws, and noted their favourite hiding and watering places. A large body of troops was collected. Some were posted in the Konkan and others along the crest of the Sahyadris, and light parties, perpetually on the move, kept surprising the Kolis in their hiding places. So hot was the pursuit that the insurgents were forced to break into small parties. All the watering places were guarded and in a few months, the two chiefs and more than eighty of their followers were caught and marched into Ahmadnagar.

Bhiwandi Riots, 1837 : There had been ill-feeling between the Musalman and the Hindus of Bhiwandi. In April 1837 the *Muharram* chanced to fall at the same time as the Hindu festival of *Ramnavmi* or Rama's birthday. The Musalmans determined not to allow the idol of Vithoba, the local representative of Rama, to be carried about the streets during the ten days of the *Muharram*. On the 14th April, Vithoba's birthday, when his image ought to have been carried through the town, the Musalmans gathered in front of his temple. The Hindus, fearing violence, gave up their procession and went to their homes. To be revenged on the Musalmans the Baniyas agreed to close their shops and the low class Hindus promised to take no part in the *Muharram*. Next day (15th April) the want of supplies irritated the Musalmans, and in the evening they were further enraged by finding that of their seven or eight *Muharram* biers or *tabuts*, only two could be moved, because the usual Hindu bearers refused to touch them and the Mahars would neither play music nor carry torches. According to the Musalman account, as the procession passed an empty house, the *tabuts* were battered with stones. On this the Musalmans broke into open riot, entered Vithoba's temple, stripped the idol of its jewels, broke some trellis work and images, and handled an old sickly Mahar so roughly that he soon after died. Forty-eight Musalmans were arrested, and twenty-one convicted and sentenced to long terms of imprisonment.

In 1840 a rising in the Thana jail was speedily suppressed by a detachment of the fifteenth regiment of Native Infantry. In 1853, in consequence of an order forbidding the digging of pits for *Holi* fires in the high roads, the Hindu merchants of Thana closed their shops. Police guards were set over the shops and the owners were compelled to open them and the opposition ceased.

The Mutinies, 1857 : Except that Vengaon near Karjat which then formed part of Thana district was the birth-place of the famous Nana Saheb, Thana had no share in the 1857 mutinies. Ragho Vishvanath, a relative of Nana Saheb, who was found stirring up the people of Vengaon, was arrested and confined in the Thana jail. To prevent the spread of false or of damaging rumours, the editors of native newspapers were warned to make no statements of alleged mutinies without the permission of Government. It may be mentioned here that a wave of repression spread all over India at the end of the rising of 1857. Thousands of innocent persons were hanged and at times whole villages were set on fire on the ground that they harboured persons who participated in the rising. The object behind the repressive measures was obvious and that was to strike terror into the hearts of the people. The result however was a growing sense of insecurity among

the people and a deep feeling of hatred engendered in their minds towards their new ruler. Thana was no exception to this general situation.

It was in 1857 that the Arms Act was passed with a view to disarming the people. Similarly the property of those who were suspected of having participated in the rising was confiscated. In pursuance of orders to disarm the district, 997 arms were destroyed and 5,204 registered. Armed parties passing through the district were disarmed, and the import or transport of brimstone, sulphur and other war-like stores was forbidden. Passports were issued to strangers travelling through the district, and no Arabs were allowed to land at the ports. The Arms Act was renewed in 1860 and finally took the shape as the Arms Act of 1878. Penalties for the breach of this Act were enforced very stringently.

In 1860 the levy of the income-tax met with considerable opposition. In Thana, Kalyan, Bhiwandi, Panvel (then in Thana district) and Shahapur, the people gathered, and going to the leading Government officials, threw the income-tax forms on the ground and refused to take them. In these towns the leading men of the different communities were called together, the foolishness of the people's conduct was explained to them, and they were persuaded to take their own forms and induce others to take theirs. In Bassein the opposition was more general and better organised. On the 4th of December about 4,000 people gathered in front of the *mamlatdar's* office, and threw down their notices and forms. The late Mr. Hunter of the Civil Service, the special income-tax officer, reached Bassein on the next day, and received from the *mamlatdar* a list of the men who had taken a leading part in the disturbance. Mr. Hunter, who was staying at the travellers' bungalow, asked the *mamlatdar* to send him the men whose names were entered in the list. They came accompanied by a great crowd. Mr. Hunter made the crowd sit down near the bungalow and spoke to them. They listened quietly and Mr. Hunter, hoping that he had brought them to a better mind, gave the leading men another opportunity of taking the income-tax forms. One of them, by name Govardhandas, refused, and behaved with such insolence that Mr. Hunter ordered him into custody. On this the people grew unruly, forced their way into the house, and made such an uproar that Mr. Hunter, finding he had lost control of them, determined to retire to his boat. The house was three-quarters of a mile from the pier, and on the way, egged on by Govardhandas, the mob attacked Mr. Hunter with sticks and stones, and forced him to run for his boat. He reached the boat without much injury, but when his servants tried to push off, they were prevented by showers of stones and were kept in this position

for three-quarters of an hour, when Mr. Hunter's clerk persuaded the people to let him go. Govardhandas, the leader in the riot, was sentenced to a month's imprisonment and a fine of Rs. 400. The details of the episode as found in Government records, are given below :—

Bassein (District Thana) resists income-tax, 1860—Deputy Collector chased and detained: Bassein (District Thana) stood firmly against the imposition of the Income-tax (1860) and pleaded its case as to why the imposition of the tax was improper and when the Deputy Collector insisted for the payment and tried to arrest the leaders, confusion and conflict followed, resulting in a mild scuffle. The Deputy Collector, Mr. Hunter, tried to escape from the scene, ran away by the back door, and reached the creek to catch the country-craft to reach Thana. But the Kolis and other agriculturists followed him up to the creek, jumped into water, and after stopping the country-craft rushed into it and brought it back to the shore. They had practically detained the Deputy Collector but no harm was done to him. They made him sit and simply urged him to drop the collection of the tax. The Deputy Collector told the people that he had no authority to do so and implored the people to leave him to go back. In the meantime leaders rushed to the spot and relieved him. Afterwards a criminal case was filed in which two or three persons were convicted.

The following account has been summarised from J. D., Vol. 53, of 1860 :—

On the 6th of December 1860, a special officer, Mr. Hunter came to Bassein in Thana collectorate to meet the assessor. He was informed there that about four thousand inhabitants had assembled, on the previous day, i.e., 5th of December 1860, before the Mamlatdar's office and number of them had thrown down their notices and forms. The Mamlatdar was immediately directed by Mr. Hunter to send to him about twenty persons whose names were then noted down while leading the demonstration.

The news reached the public and before those leaders could be present at the rest-house where Mr. Hunter was putting up, the numbers of Kolis and others assembled before his residence. He found it impossible then to deal with the leaders and therefore resolved to address the whole gathering about 1,200 to 1,500 persons, half of whom were Kolis. They all sat quietly behind the leaders whom he had summoned. They gave him a patient hearing with possible attention, when he explained them the reasonableness and necessity of the taxation, and their duties and liabilities under the Act. But when he started telling them in a warning tone the

penalties for refusing to accept forms and for obstructing the officials to do their duty, there was a slight resistance. Meanwhile Mr. Hunter asked the leaders to receive the forms, which were received by a few ones. One Govardhan Gangadas refused to accept it. He was suggested by Mr. Hunter to accept it, in order to show others an example of worthy conduct, but he rather hesitated. This made the whole mob uneasy and restive. They rose from their seats. Mr. Hunter and the Mamlatdar tried to calm down the restive mob who backed their leader's refusal to accept the form. The furious mob was induced to return quietly to their homes. At this stage Govardhan stepped forward and refused to leave the spot unless orders regarding his assessments were conveyed to him. It was a sort of bold challenge to the authority. Mr. Hunter ordered for his arrest, but the police sepoy showed his reluctance to do so. This provoked Mr. Hunter into catching hold of the defiant Govardhan's arm and putting him inside the verandah of the rest-house. Mr. Hunter was rather anxious to prove that in spite of the policeman's declining to arrest the defiant leader, he himself could execute a decided step. But prestige of authority could not be maintained before the angry mob which pressed in the rest-house with violent intentions. The Government officials rescued Mr. Hunter to take him to his boat. He himself also had requested the mob to reach the boat as he did not want to lose the tide. He was thus rescued from the rest-house, but while passing through the town's high road was assaulted by the furious crowd. Someone snatched from him his walking stick, others pelted stones at him and mobbed him completely by beating him with sticks. Not only that, when he entered his boat, they anchored it, pelted stones at it, and troubled him so far an hour or so. His *shirestedar* could induce the mob of the illegal nature of their violent behaviour and thus he could escape from the danger. Mr. Hunter thought this violence to be a pre-arranged plot (pages 110, 111 and 113, J. D. 53 of 1860).

Why they were against taxation: Sheth Gordhandas was the leader of the people whom the Deputy Collector, Mr. Hunter tried to persuade to accept the notice for the income-tax. He refused to accept it. The following gives the English version of an extract from the Marathi passage given below of a portion of the conversation that took place between Mr. Hunter and Sheth Gordhandas :—

When asked to explain why the tax was thought to be unjust, Sheth Gordhandas said :

“A good deal of expenditure made by the Government is done improperly and excessively. That should be reduced. The salaries of European officers are so fat that one-fourth of the salary of

one single English officer is enough to cover the expenditure of the whole establishment of his office. In most of the other departments, the same mis-management is found. That should be stopped and the money saved by this should be utilized for this purpose. We poor residents of this country should not be taxed."

On this the Saheb replied, "the Government is trying to make economy as much as possible. You need not tell about it."

On this Gordhandas Sheth said, "You only talk it, and publish it in newspapers. But such are not at all the intentions of the Government. To put in short, they (the Government) desire that we should be reduced to utter poverty. Whatever ornaments or brass vessels we have in our houses should go, and we should be finished as the Red Indians were annihilated in America. If you search the houses of the Ryots you will not find grains sufficient even for one-time meal. You have snatched away from us all our trade and industries. Death is confronting us due to starvation. With our hands tied down we have become helpless and have been reduced to utter poverty; hence we should not be burdened with such tax, and we shall not pay it."

He disobeyed the order : On this the Saheb said, "This won't do; you must accept the notice and must pay the tax as ordered in it." Gordhandas Sheth replied, "We shall not accept it." On this the Saheb tried to put the notice in the hand of Gordhandas Sheth and said "if you do not accept it you will be charged with breaking the order."

To this Gordhandas Sheth said, "you have power in your hands. You can charge me with anything. I will never accept the notice."

One Govind Babaji Joshi who travelled widely during 1860 and 1885 had given a very graphic description of his travels in his book "*Maze Pravasachi Hakikat*" published in 1896. The account of the episode at Bassein has been elaborately described by the author in this book which is reproduced below :—

"सन १८५९ चे सुमारास सरकारने जो इन्कम टॅक्स नावाचा कर हिंदुस्थानातील रयतेवर प्रथम बसविला त्याची समजूत देण्याकरतां मे. हंटरसाहेब, त्यावेळेचे वसई प्रांताचे असिस्टंट कलेक्टर वसईस आले होते, त्यांच्याशी जी रयतेची धिंगामस्ती झाली त्याची हकीकत. सन १८५७ सालीं श्रीमंत नानासाहेब पेशवे यांनी दुसरा बाजीराव यांस नेमणूक चालत आल्याप्रमाणे आपल्यासही चालवावी म्हणून ईस्ट इंडिया कंपनीकडे अर्ज केला होता. परंतु इंग्रज ती मागणी कबूल करीना. सबब नानासाहेब आणि इंग्रज यांत जी हातघाई झाली, त्यानंतर पुढील सालीं लढाईत जो खर्च झाला तो भरून निघण्याकरता रयतेवर इन्कम टॅक्सचा कर बसविला आहे, असे वसई गांवात जाहीरनामे लावले होते व त्याचे वसूल बाकीची सर्व व्यवस्था वसई येथील त्यावेळेचे मामलेदार काशिनाथ त्रिंबक लोंडे पुणेकर यांजकडे होती. मामलेदारांनी नोटीशी

तलाठीमार्फत घोषण दिल्या, त्या रयत घेईना व त्या मामलेदार कचेरीपुढे परत पुष्कळांनी आणून फेकून दिल्या. सबब वरील असिस्टंट कलेक्टरसाहेब रयतेची समजूत घालण्याकरिता म्हणून ठाण्याहून मुद्दाम आले होते. तालुक्यांतील रयत मामलेदारांचे बोलावण्यावरून रहदारी बंगल्यापाशी एकत्र झाली होती. सुमारे दोन हजारवर लोक जमले होते. त्यास साहेब बहादूर समजूत द्यावयास लागले. कर बसविण्याचे कारणांसह चांगले मुद्यानिशी साहेबांनी भाषण केले. त्याचा जबाब देतांना रयतेने जी भाषणे केली ती जरी विसंगत व ज्यांची शुद्ध रचना बरोबर नाही अशी होती तरी त्यांचा भावार्थ मोठा खोल विचाराचा होता. रयत म्हणाली की, हा कर सरकारने विचार केल्याशिवाय व आमच्या प्राप्तीचा पुरा तपास केल्यावाचून आम्हांवर बसविला आहे. असा जुलूम करणे असेल तर सरकारने आमची घरेदारे विकून पाहिजे तर कर बसूळ करावा. आम्ही खुषीने कर द्यावयास राजी नाही, असे सर्व लोक बोलू लागले. त्यानंतर साहेब लोकांनी हुकूम केला की काहीं प्रतिष्ठित लोकांस मात्र बंगल्यापाशी आणावे, बाकीच्या लोकांस दूर ठेवावे. त्याप्रमाणे अन्नदार, पांढरपेशे वगैरे सुमारे पन्नास लोक बंगल्यापाशी गेले. बाकी रयत थोड्या अंतरावर, आठ-दहा हातांवर राहिली. पण तीही हळूहळू त्या पांढरपेशी लोकांचे पाठीमागे जाऊन साहेबांचे भाषण ऐकण्यास उभी राहिली. सर्वांचे पुढे पांढरपेशे (ब्राह्मण, परभू, गौडब्राह्मण वगैरे) त्यांचेमागे वाणीउदमी, त्यांचेमागे कासार, सोनार, मुसलमान व सर्वांचे शेवटी काहीं अंतरावर मच्छी मारणारे कोळी व वसई आगरांतील किरिस्तान, पोर्चुगीज, माळी, सुमारे तीनशेंपासून चारशे लोक उभे होते. इतक्यात साहेबांचे शिरस्तेदारांनी काल रोजी मामलेदार कचेरीपुढे नोटीशी टाकलेल्या आणवून ठेवल्या होत्या व त्यांतून एकेक काढून नावे वाचून हांका मारू लागले. यावेळीही साहेबांनी सांगितले की, सरकारांनी जर कर बसविला आहे तर रयतेने सरकारचा हुकूम न तोडता मान्य करून नोटीशी ज्याच्या त्यांनी घेतल्या पाहिजेत. नंतर नावे वाचण्यास सुरुवात झाली. त्यांत प्रथमची नोटीस गोवर्धन गंगादास वाणी याची निघाली. नोटीस देऊ लागले असता मी घेत नाही असे शेटनी सांगितले. साहेबांनी सर्व लोकांस पुन्हा निवेदन केले की सरकारास नाना-साहेबांबरोबर लढाई करतांना बहुत खर्च झाला आहे, हालअपेष्टाही पुष्कळ भोगाव्या लागल्या आहेत, कर्ज फार झाले आहे व त्याचे फेडीकरता इन्कम टॅक्स—नवीन कर बसविणे भाग झाले आहे. तर सरकारला रयतेने मदत केली पाहिजे व हे रयतेचे कर्तव्यही आहे. त्याजवर गोवर्धनदास यांनी जबाब दिला की सरकारचे पुष्कळ अव्यवस्थित व फाजील खर्च आहेत ते कमी करावे अथवा साहेब लोकांस इतकाले मोठे पगार आहेत की एका साहेबाचा जो पगार असतो त्याच्या चौथ्या हिशंगांत त्याच्या ऑफिसचे सर्व एस्टॅब्लिशमेंटाचा पगार असतो. याप्रमाणे दुसरे पुष्कळ खात्यांतही अशीच अव्यवस्था आहे, ती बंद करून जो पैसा शिल्लक राहील तो तिकडे लावावा. त्याजवर साहेब बोलले की, जितकी काटकसर करवेल तितकी सरकार करीत आहे. त्याच्याविषयी तुम्ही सांगावयास नको. गोवर्धनशेट बोलले की, हे फक्त आपण तोंडांने व वर्तमानपत्रांत मात्र बोलता. थोडक्यांत सांगितले तर आम्ही हिंदुस्थानवासी लोकांनी अगदी दरिद्री व्हावे, आमच्या घरांत जी थोडी धातूची भांडी व डागडागिने आहेत, ते नाहीसे करून ज्याप्रमाणे अमेरिकेतील रेड इंडियन लोकांचा निकाल झाला तसा आमचा निकाल व्हावा अशी आपल्या लोकांची इच्छा आहे. आमच्या रयतेच्या घरांत पहाल तर दोन प्रहराला पुरेलइतके अन्नसुद्धा पुष्कळ लोकांचे घरी राहिले नाही. आमचे धंदे व व्यापार सर्व तुम्ही हिसकून घेतले आहेत. आम्हांस हात बांधून उपाशी राहून मरण्याचा प्रसंग आला आहे. याप्रमाणे आम्ही अगदी दीन व दरिद्री झालो आहो. याजकरिता आम्हांस इन्कम टॅक्स नको व आम्ही तो देणार नाही. त्याजवर साहेबांनी सांगितले की असे म्हणून कधी चालावयाचे नाही. गोवर्धनदासशेट

बोलले कीं आम्हीं नोटीस घेत नाही. तेव्हां नोटीस साहेब त्यांचे हातांत देऊं लागले आणि सांगितलें कीं जर तूं घेणार नाहीस तर तुजवर हुकूम तोडल्याचा चार्ज ठेवला जाईल. त्यानंतर शेट बोलले सत्ता तुमचे हातीं आहे, खुशाल ठेवा. मी नोटीस घेणार नाही. नंतर साहेबांनीं आपल्या जमादारास हुकूम केला कीं, यास पकडून त्याचे हातांत नोटीस द्यावी. गोवर्धनशेट शरीरांनै मजबूत, तशांत ऐन पंचविशींचे भरांत असल्यामुळें शेटजी म्हणालें पकडा पाहूं कसा पकडतां तो. तेव्हां जमादार व शिपाई लोक कैद करण्याकरतां त्यांस धरूं लागले. तेव्हांच शेटजीनीं त्यांस झिडकारून टाकलें. असा हातघाईचा प्रकार सुरू झाला. सबब साहेब स्वतः बंगल्याच्या पायऱ्या उतरून गोवर्धनदास शेटजीस धरूं लागले असतां त्यांची व साहेबांचीही बरीच झटापटी झाली. शेवटी आठ शिपाई व साहेब मिळून त्यांस तर एकदांचे धरले आणि पायऱ्या चढवून वर नेले. ही खबर अशिक्षित लोकांस समजतांच मग काय विचारतां ते आपसांत एकमेकांशीं द्विधाबोलां लागले. पुढें जे लोक उभे होते त्यांस या लोकांनीं दोन हातांनीं मागें सारून प्रथम गोवर्धनदास यांस तर सोडून आणलेच. गोवर्धनशेटनीं पुष्कळ समजूत घातली. तें त्यांस पटेना. या लोकांस शिपाई लोक हस्त-हेतें बंगल्याबाहेर घालवूं लागले व सर्व लोक शेटजींस ताब्यांत घेण्याकरतां बंगल्यांत शिरूं लागले. या लोकांनीं गोवर्धनशेट यांस न सोडतां आपणही शिपायांचे स्वाधीन झाले नाहीत. साहेब तर धिगामस्ती व गर्दी पाहून अगदीं घाबरून गेले व बंगल्याचे आंत शिरले. शिपाई बंगल्याचीं दारें लावून घेऊं लागले. कोळी-माळी वगैरे लोकांनीं बंगल्यांत जाऊन साहेबास धरून खुर्चीवर बसवून बोलणें चालविलें कीं आम्हांस इन्कम टॅक्स सोडावा. इतर लोक चोहोंकडून बंगल्यांत भरूं लागले. सबब तेथे राहणे आतां चांगलें नाही असे समजून जलमागानें ठाण्यास जाण्याचा साहेबांनीं निश्चय केला. साहेब जलदी करून बंदरावर जाऊं लागले. लोकही धावूं लागले. बंदरावर कस्टमची एक बोट तयार होती. तीत बसून जलदी बोट हांकरण्यास साहेबांनीं सांगितलें. बोटीवरील खलाशी शीड चढवीत आहेत तों दर्यावर्दी लोक येऊन पोचले. कोळ्यांनी पाण्यांत उड्या टाकून पोहत ती बोट धरली व मागें फिरवली. साहेबांस विनंती करूं लागले कीं इन्कम टॅक्स सोडा. साहेब त्याजला लीनतेनें जबाब देत कीं, सरकारांत लिहून खटपट करीन. लोक म्हणत सोडला म्हणून लिहून दे. त्याशिवाय सोडणार नाही. दोन घटका बोलणें चाललें. मागून आलेल्या व्यापारी लोकांनी कशीतरी समजूत घालून साहेबांस बोटीत बसवून एकदांचे साहेब ठाण्यास गेले. या घालमेलीत साहेबांस कित्येकांनीं धोंडे मारले व धक्काबुक्कीही केली. त्यांचे अंगावरील कपडे फाटले. पुढे कसा प्रसंग येणार याजबाबत अश्रुदार लोक घाबरून गेले. कितीएकांनी आपले घरांतील डाग-डागिने पुरून टाकले, भांडीकुंडीं विहिरीत टाकलीं. गोवर्धनशेटनीं काहीएक केलें नाही. विश्वासू नोकरास जवळ रात्रंदिवस ठेवले होते. दोन दिवसांनीं काहीं साहेब लोक व शंभर पोलीसचे शिपाई ठाण्याहून एकदम वसईस पहाटेस येऊन गावांत शिरले. ३०-४० सावकार व व्यापारी यांस पकडून ठाण्यास नेले. गोवर्धनशेट यांचे घरावर पोलीसांनी गर्दी केली. मग त्यांस ठाण्यास नेल्यावर कलेक्टरसाहेबां-पुढे उभे केलें. साहेब त्यांस पाहून अति संतापला व एकदम कैदेत टाका असा हुकूम केला. पण जामिनावर सोडीना. ठाण्याचे नगरशेट, वाणी, ब्राम्हणमंडळी यांनीं पुष्कळ सांगितलें तरी साहेबांनी तें काहीएक ऐकलें नाही. काहीं काळपर्यंत त्या प्रतिष्ठित लोकांस प्रतिबंधांत रहावें लागले. इतक्यांत मुंबईहून मेहेरबान ऑनस्टी-साहेब प्रसिद्ध बॅरिस्टर यांस काही लोक घेऊन आले. त्यांनीं कायदेशीर तक्रार करून सर्वांस मोकळे केले. हा कज्जा ठाण्याचे सेशन जज मे. फारबँसाहेब यांजपुढें दहा दिवस चालला. शेवटी एकदोन इसमांवर धिगामस्ती व गर्दी केल्याचा पुरावा

झाल्यामुळे तितक्यांस मात्र वर्षसहामहिन्यांच्या शिक्षा झाल्या व बाकीच्या सर्व लोकांस एकदम सोडून दिले."

The episode described above shows the general psychology of the people and the response of the rulers to it. The English were firmly convinced that repressive measures done would not enable them to firmly establish their hold in India and they therefore employed astutely the policy of "divide and rule" in order to keep their hold over the people. This was reflected in the reorganisation of the armed forces and civil services now mainly found into tribal, sectarian, religious and caste groups. The aim of the rulers was obvious and that was the creation of an official administrative instrument isolated from the public. This policy was also reflected in another sphere, viz., the attitude adopted by the English towards Muslims who now became the chosen people of the government with the result that Hindus and Muslims were set against each other.

However in the aftermath of the rising the policy of Dalhousie towards the princely states was topsyturvier. They were now restored to their former honours and rights and became the fervent allies of the rulers in the pursuit of their imperial policies. In the Thana district as elsewhere the socio-political repercussions of the dissensions nurtured by the English had their lasting impact and it created innumerable problems which defied solution.

However though apparently it appeared that the English had succeeded in restoring calm and quiet in the district all was not so well, minor disturbances erupted here and there as the following episode would illustrate :

Gang Robberies, 1874 : In 1874 Honia Bhagoji Kenglia, a Koli of Jamburi in Poona, became the leader of a large band of robbers. A special party of police, under an European officer, was sent to hunt him, but he moved with such secrecy and speed that he remained at large for two years. At length, on the 15th of August 1876, Honia was caught near Nandgaon in Karjat and condemned to transportation for life. Most of his gang was shortly after seized and sentenced to heavy terms of imprisonment.

It was in 1877 that Wasudev Balwant Phadke organised raids throughout Maharashtra and though termed as "gang robberies" by the rulers they could perhaps be regarded as an attempt by a zealous and aroused youth to over-throw the British rule by revolutionary methods. He failed in his attempt and was arrested.

The Government of Bombay decided to prosecute Wasudeo Balwant under the sections of Indian Penal Code. The trial brought transportation for life to Wasudeo Balwant. He was taken to the Yerwada

prison and from thence he was transferred to the Thana jail. There was great public enthusiasm on the Poona station on the day when he was being taken to Thana. The respect shown by the people to Wasudeo Balwant was so great that Government was taken aback and officers responsible for not keeping the transfer a close secret were reprimanded. From Thana jail Wasudeo Balwant was to be removed to the Andamans. A whole gang of life-convicts was to be sent to the Andamans. But Government directed Mr. Smith, Superintendent, Thana jail, not to send him with the gang, but to escort him secretly by a previous train and subsequently joined to the gang of life-convicts. He should, until then, be kept at the Jalgaon prison. It was against rules to send away Wasudeo Balwant before he had appealed, but Government was sure that the appeal would not affect the action of the Government. This episode moved the people of Thana district and caused much commotion.

These events took place in Lord Lytton's unblessed regime which left sad memories in the people's mind. The oppressive Vernacular Press Act, the huge expenditure incurred during the Second Afghan War, the lowering of the age-limit for admission of Indians to the Indian Civil Services and the opening of the Muhammedan Anglo-Oriental College at Aligadh roused public feeling throughout India and Thana was not slow to react against these memories.

Under British rule the trade of the district had developed from 411 lakhs of imports and 330 lakhs of exports in 1805 to 2357 lakhs of imports and 2921 lakhs of exports in 1881, an increase of about seven-fold. This trade, both by land and by sea, was almost entirely local. The foreign trade of the Thana coast continued to centre in Bombay. The great increase, six hundred to eight hundred fold in the trade of Bombay since the beginning of the century, had not directly benefited the Thana district. The passage of goods across the district by rail and the competition of steamers might even have taken from the cartmen and seamen of Thana former means of employment. Still indirectly Thana had gained. It is chiefly to the increase of work and the growth of population which had accompanied the development of trade in Bombay, that the Thana district owed its advance in wealth and prosperity. The trade of Bombay furnished employment for numbers of the upper classes as clerks and traders, and for numbers of the lower classes as craftsmen and labourers. Since 1820, the growth of Bombay had probably increased about six-fold the demand for the lime, stones, sand, tiles and wood used in its buildings, and for the salt, grass, straw, grain, vegetables, fruit and liquor consumed by its people and animals, perishable or bulky articles in the supply of which Thana so favourably competed with more distant districts.

MODERN PERIOD

It may be noted that the transition of India from a state of abject submission to an awareness of her greatness and rich heritage was a slow and gradual process due to the demoralising effect of the British rule. As a result a decadence seems to have set in India and it lay as a heavy fall on Indian life and thought. This led to aggressive activities of the Christian missionaries whose activities were centred round the presidency town of Bombay. Thana district naturally did not escape from these activities. They established schools and colleges aided and encouraged by the government. The intention behind this policy was most obvious and that was to create an English-educated docile class looking to the British for guidance and preferment. If not wholly, the rulers at least partially succeeded in their attempt. This naturally led to the revival of Hindu religion and the resurgence of Indian culture. This movement was spear-headed by Raja Ram Mohan Roy. However Raja Ram Mohan Roy was essentially an intellectual and a rationalist and his feelings could not be appreciated by the common people and as such his teachings had very little impact on the people of Thana district. Even then the Hindu society in Thana district due to its proximity of Bombay was sufficiently energetic to put up resistance against the activities of Christian missionaries as the proselytising activities of the Portuguese were not totally erased from the minds of the people. The resistance of the people was strengthened by the Arya Samaj which first came into existence in Bombay in 1875 and its effect could not but be felt in the neighbouring Thana district. But far more towards the reversion of Hindu faith was achieved by the teachings of Ramkrishna Paramhansa and his great disciple Vivekananda. While these revivalist movements brought before the minds of the Indian people a vision of the greatness and uniqueness of their heritage, the typical attitude of the rulers roused in their minds a sense of keen bitterness and disillusionment. A reference has already been made to the obnoxious rule of Lord Lytton whose reactionary measures created a great stir among the educated Indians. This class now fired by patriotism and spirit of independence assumed the leadership of the people and became their spokesmen and it was from among them that the founders of the Indian National Congress sprang up. The district of Thana has its share in these convulsions and the establishment of the Congress in 1885 had a profound effect on the life of the people in the district in general. In no lesser degree than the growing political consciousness, the economic slump that set in with the advent of the British rule contributed to the establishment and strengthening of the National body. The collapse of the economy during the 75 years or so of the British rule created appalling

distress among the people and adversely affected the morale of the producers of wealth. As Sir Henry Cotton wrote in 1885, "There is no great harm in saying that the land belongs to the state, when the state is only another name for the people. But it is very different when the state is represented by a small minority of foreigners who disburse nearly one third of the revenue received from the land on the remuneration of their own servants and who have no stake in the fortunes of the country." Under these circumstances it was but natural the agitated minds of the people were sure to find some expression in one form or other. Initially it was the Indian Association which provided the earliest forums of public opinion. They followed the Presidency Association of Bombay, Malajana Sabha of Madras and Sarvajanik Sabha of Poona. The men who constituted these associations were not radicals in thought and outlook and the idea of replacing the foreign rule by their own did not even touch them. They were willing to accept the foreign rule as inevitable but wanted the people of the country to share in its administration. It was now the era of petitions and protests began as a prelude to the establishment of the Indian National Congress. It was on the arrival of the new viceroy Lord Dufferin in 1884 that the stage was set for ushering in the Congress with the initiative taken by A. O. Hume, a retired civil servant. It was proposed to convene the Indian National Union, as it was then called, at Bombay and the First National Congress met on 28th December 1885 in the Gokuldas Tejpal Sanskrit College when the voices of A. O. Hume, S. Subrahmania and K. T. Telang were heard and W. C. Banerjee was elected the first President. The first meeting of the Congress was in the nature of a dedicatory session. For some time henceforth all national activity derived its strength and its active workers from the Indian National Congress whose annual sessions reflected accurately the reactions of the educated class in the country to the policies and measures of the Government. The Government looked upon the Congress with disfavour and suspicion and Lord Dufferin had the ill-grace to describe the Congress a seditious organization which was an indirect tribute to the strength of the organization. As a result the government started putting obstacles in the way of holding these sessions and persons who attended these sessions became the victims of official persecution. The government went to the extent of issuing a warning to its local officers to keep aloof from the Indian National Congress and its activities. This attitude is best reflected in the reply which Lord Lansdowne, the Viceroy, gave to the question about government servants attending the Congress session. "The Government of India recognised that the Congress movement is regarded as representing what would in Europe be called the advanced Liberal

Party, as distinguished from the great body of conservative opinion which existed side by side with it. They desire themselves to maintain an attitude of neutrality in their relations with both parties, so long as these act strictly within their constitutional functions. The Government of India considers the Congress to be a constitutional body and the position of the Congress *vis-a-vis* the Government was parallel to that of the opposition in England, and the Government of India was strictly neutral." The attitude of the Government no longer remained of passive criticism but it found it desirable to bolster up the great body of conservative opinion to serve as a counterpoise to Congress. Thana district could not remain aloof from these developments which were taking place after and near its boundaries. It may be noted that the national politics was reflected though on a smaller scale in local problems. Thana was not an exception to it. In 1885 for the first time in the history of Thana municipality the principle of election was accepted and elections were contested on a limited franchise basis. Another factor that also deserves notice is the acceptance of the nomination principle in case of the president of the municipality which place was formerly occupied by the Collector of the district, Thana being the district headquarters. How the government was dressed by the principle of "divide and rule" could be seen from its encouragement to the citizens to select the candidates on communal basis with three Parsees, two Christians, one Jew, one Muslim and two Hindus. The leading paper of Thana, *Arunodaya*, wrote an article stating explicitly that on the basis of population the correct ratio would be seven Hindus, one Christian, one Muslim and one Parsee and/or Jew. Surprisingly the editor of *Arunodaya* was defeated in the elections but was nominated by the government to the municipal committee. His action in accepting the nomination was severely criticised resulting in his resignation a couple of years afterwards. The first "Native" president of Thana Municipality was Shri Balasaheb *alias* Narayan Vasudev Kharkar. The press in Thana acclaimed his election. The people were also alert regarding the municipal administration and the views of the people found expression in the local press. Misbehaviour or misconduct on the part of the local body was severely criticised which had the effect of keeping the administration clean.

It was now that the demand for representative institutions began to take shape in the sessions of the Congress. The government response was the Councils Act of 1892. The Act in no way heralded the beginning of a Parliamentary system in India as it had carefully avoided any appearance of an elective principle. Though the government was adamant in its policy of not granting any political concession at

a lower level the attitude of the government was more or less flexible. The government, though it did not encourage, neither did it discourage the creation of local self-governing institutions like the municipalities. A municipality was to be established on a demand to the effect coming from the citizens of the place concerned. Thana district had its first municipality at Kalyan, followed by Thana and Bhiwandi, though the elective principle was introduced as late as 1885. It may be noted that as elsewhere in the country, the district of Thana was not far behind in social, cultural and educational awakening. It was in 1894 that the famous Marathi Grantha Sangrahalay was established and it could be regarded as the first institution of its type in Maharashtra devoted to the collection of valuable books in Marathi language. The institution has contributed much to the cultural and literary development of the people in Thana town in particular and of the district in general. The general cultural awakening that was taking place in the country side by side with the gradual growth of political consciousness had its impact on the district of Thana, especially Thana town. Many literary personalities contributed to this development. As a matter of fact due to its nearness to Bombay, Thana always played second fiddle to it in all respects. Quite a few personalities deserve mention in this regard. The pioneer in the field of literature was Shri Bhaskar Damodar Palande who was a poet of merit and a scholar who wrote essays on varied topics. To his credit also goes the prose rendering of विक्रमोर्वशीय and versification of भगवद्गीता. He however died very young at the age 42 in the year 1874. He was followed by three more intellectuals, viz., Janardan Balaji Modak, Shankar Balaji Dikshit and Vinayak Lakshman Bhawe. Modak was the head of the High School and a great scholar of Sanskrit. He used to edit a Marathi monthly *Kavyasangraha*. Dikshit was also the head of a Marathi school in Thana and was a scholar of Sanskrit with a live interest in mathematics. His interest in mathematics and Sanskrit greatly influenced his study of Astrology of which he was a very keen student. He had more than half a dozen books on the subject and the work that deserves a special mention is his "भारतीय ज्योतिषशास्त्र अथवा भारतीय ज्योतिषाचा प्राचीन आणि अर्वाचीन इतिहास" published in 1896. That the work was translated in English speaks volumes for its scholarship, educative value and popular appeal. The third in the galaxy of erudite persons was Vinayak Laxman Bhawe, popularly nick-named Maharashtra Saraswatkar. He was a keen student of natural history. His great contribution is the महाराष्ट्र सारस्वत which delineates the history of Marathi language and his work is still regarded as an authority on the subject. Perhaps to him goes the credit of bringing to light the *Mahanubhav* literature. The contributions of

these eminent scholars did much to elevate the cultural life of Thana town in particular and Thana district in general. Mention must also be made of the two early newspapers सूर्योदय and अरुणोदय edited by Dabake and Phadke, respectively. These two newspapers were the pioneer in the field not only in Thana district but in the adjoining districts as well with Bombay of course excluded. Both the editions owned printing presses of their own. It is worthy to note that both the editors in those days of trial and travail propagated national views and in the years to follow Dhondopant Phadke, the son of Kashinath Phadke, was forced down to close his paper for the support he extended to Tilak and for which he was prosecuted. As a matter of fact like their pioneership in the field of newspapers Dabake and Phadke could both be regarded as pioneer in the field of printing technology, especially the former in whose press one of the many books of Lokahitwadi, viz., *Panipat* was printed. To Dabake also goes the credit of starting for the first time in Marathi a magazine called *Hindupanch* on lines similar to the "*Punch*" published in England. The activities and the progressive views of these scholars and journalists had a great impact upon the events of the closing years of the nineteenth century and the early years of the twentieth century. The Congress with the passage of time was gaining in strength and the government was forced to take cognizance of its activities. As a matter of fact the Congress became the forum through which the grievances of the people were ventilated. The 1891 session of the Congress discussed the Second Afghan War and the obnoxious forest laws which had proved irksome to the people as they had deprived the villagers of their privileges such as common pasturage. The Indian Councils Act of 1892 did not concede the elective principle and proved to be a very poor substitute for what the people had asked for. This public disappointment was voiced in the Congress session of Allahabad in 1892.

The last decade of the nineteenth century was almost continuously haunted by famine. Such was the destitution caused by the famine that large parts of the country were rendered desolate and devoid of human existence. As if this was not enough, another scourge swept through the western and the northern parts of the country the pestilence of bubonic plague. It appeared first in Bombay and with nearly 40,000 panic-stricken people fleeing to villages. The disease spread into the district. But the plague had another indirect and far-reaching consequence on the politics of the country. Its ravages in the famine-stricken Deccan brought to the fore-front one of the architects of India's freedom Bal Gangadhar Tilak. He had organised a no-tax campaign during the year of the famine in 1896. This perhaps led

to the Thana riots of 1897-98. The Hon. Mr. A. C. Logan, I.C.S., Commissioner, Central Division, wrote a lengthy communication to the Government of Bombay on this recent order of the Government of India. In the course of his letter Mr. Logan cites his experience of the riots of 1897-98 in the Thana district. The following extract gives some idea about the disturbances :—

“ It was to me that the suppression of disturbances of 1897-98 in the Thana District was entrusted The story is worth a brief recapitulation. The grievance which started the troubles was confined to a few hundred forest people, who at great damage to the forests supplied the Brahmin and other wealthy inhabitants of Bassein and other coast villages with cheap fire-wood. This trade was suddenly interdicted, and the forest people, incited by their customers, defied the interdict, over-powered the forest guards and brought their loads to Bassein with riotous demonstrations. No effectual steps were taken by the then Collector to punish the offenders to prevent a repetition of the offence and this open triumph of a few wild folk and their Brahmin allies produced a contagion of lawlessness which soon infected the whole district. The forest tribes, though in general unconnected with the particular trade described, rose everywhere, and for a while ousted the jurisdiction of the forest department : even the European officers were assaulted and had to be withdrawn to headquarters. The Koli fishermen, who had absolutely nothing to do with the forests and who owing to their trade in Bombay are an exceptionally prosperous class, rose to the cry of free liquor and free sale, and stormed a Deputy Collector's camp demanding (and getting) orders from him to the liquor shop-keepers to supply liquor gratis. The Agris or cultivating class became turbulent and threatening in demands for various concessions, and all the guards of the sub-divisional officers had to be posted to secure their personal safety. In the meantime a plot, no doubt under skilled guidance, was being formed for the advance of three mobs from different directions on the headquarters town and occult symbols flew from village to village. One of these mobs, consisting of several thousand persons, rose before its time and attacked the town of Mahim with the intention of plundering the treasury. Happily the Deputy Collector had the courage to order the police to fire and the assailants dispersed after a few had fallen. At this juncture I arrived, and with the aid of several extra assistant Collectors and a very large force of punitive police was able to cope with and finally to suppress the disturbances. But owing to the arrival of the plague and a partial failure of the rain the lawlessness received a new stimulus. The Kolis of the north sailed out and committed piracies on passing grain-

boats, and those of the south raised a riot against plague measures in which a *mamlatdar* was only saved from death by the gallantry of Mr. Hudson who cut his way through the mob with the wounded man on his horse and shortly afterwards dispersed it with the aid of the Bombay Light Horse. The native Christians who shared the Kolis' discontent at the price of liquor emulated them in disorder and (sometimes headed by their priests) burnt down every plague hospital in their parishes as soon as it was erected. Meanwhile Bal Gangadhar Tilak, through the agency of a seditious *Sabha* at Umbargaon, was flooding the country with proclamations against payment of land revenue and urging resistance to any attempt to collect it. And in the midst of all these troubles there was a partial mutiny among the police and one of them deserted with a drill book and after arming and drilling a small number of confederates went off to the Ghats to raise the hill Kolis for an attack on Matheran. I may add that throughout these troubles the village officers were almost invariably active or passive connivers with the disturbances of peace."

Now a great disaster befell then in the form of plague. The government with a view to arrest the spread of the disease put the army on the job. The soldiery handled the situation very roughly clearing the streets, entering the houses, violating the privacy of homes and dealt with the "natives" in a summary fashion. Tilak through the *Kesari* vehemently protested against this behaviour which roused the popular feeling violently. The aftermath was the murder of Rand and Lt. Ayerst, the officers on plague duty in Pune. The two Chaphekar brothers said to have been guilty were tried and executed while Tilak was also tried and sentenced to eighteen months' rigorous imprisonment. Thana was agitated at this news. The Congress condemned the reactionary policy of the Government. It may be noted that these actions on the part of government led to the birth of the militant and extremist school in the Congress. It was not these blatant acts of oppression alone which roused the resentment of the people but the various acts of ill-treatment and discourtesy which marked the conduct of the Englishmen lacerated the hearts of the people. It was against these that the Indian press especially the *Kesari* and the *Maratha* wrote bitterly. The closing years of the nineteenth century were thus years of great stress and difficulties. The government, it appears, seemed to have been driven to a state of panic. It passed the sedition law which gave absolute powers to the magistracy and the criminal code was drastically amended.

The 1904 Congress session in Bombay brought the political scene in India in close proximity to Thana and the atmosphere in Thana

was full of enthusiasm and expectation due to the presence of so many national dignitaries so close to it in Bombay.

It was in 1905 that Lord Curzon took the momentous decision of partitioning Bengal. There was great political upsurge in the country and the district of Thana had its own share in vehemently opposing the measure. It may be noted that the Congress met in an entirely different mood at Banaras in 1905. Out of the anti-partition agitation was born the cult of *Swadeshi* and Boycott. The end of Curzon's term marked as if the beginning of India's aggressive political awakening. In its session at Calcutta held in 1906 the Congress declared *swarajya* as its immediate goal. The session was dominated by extremists like Lal, Bal and Pal. It was at this time that the terrorist movement began to assume serious proportions. Occasions like *Shiva Jayanti* and *Ganeshotsava* were utilised to inflame popular passions and emotions. Towards 1907 Tilak came to the fore-front as the leader of the extremist group in the Congress. The venue of the Congress, due to the rift in the organization between moderates and extremists, was shifted from Nagpur to Surat in that year. This precipitated the break between these two wings of the Congress. The attempts made by the government to grant political reforms to India were too late and too inadequate so that agitation, repression and violence followed in their wake. It was in 1908 that Lokamanya Tilak was arrested for his articles on the Manikola case and was sentenced to deportation for six years. The news created sensation and tense atmosphere in Thana. It will be interesting to take note here of the revolutionary activities in Thana district though on a very small scale. In 1909 one person was arrested and tried and sentenced to rigorous imprisonment. He was Dhanappa Shidramappa Valve charged under section 124-A of the Indian Penal Code and sentenced to six months' rigorous imprisonment. The other arrests in the same year pertained to one Bhosekar's case under the Explosives Act. The arrests were effected at Kalyan. Of these, one was sent for trial but was acquitted by High Court. Though these incidents are of a minor nature, they reflect the growing uneasiness of the people consequent upon the disillusionment they experienced from the failure of the British government to respond to the growing ambitions of the people represented through the Congress. They also reflect to some degree the impatience of the people towards the methods adopted by the Congress in securing its goal. As a matter of fact the rift in the national organization had permeated to the district level and naturally found its expression in the episodes quoted above which drew their inspiration from the larger and wider terrorist movement that was gradually gaining momentum in India. In Maharashtra this disillusionment found another media of expression and that was

through the stage. Intelligent writers made use of their dramatic art in propagating principles of nationalism and spreading disaffection about foreign rule. Government were quick in noticing the powerful effect of the stage in the propagation of seditious ideas and very promptly suppressed plays which in their opinion carried on political propaganda through their stories and dialogues. Among such plays were *Shiv Chhatrapati Vijaya*, *Khara Rajput*, *Rana Bhimdeo*, *Kalicha Narad*, *Bandhavimochan* etc., the last of which a musical play was written by one Gopal Govind Soman, a clerk in the office of the Executive Engineer, Thana. The Oriental Translator's view on this play is very illuminating. He says, "the aim of the writer who seems to be a half educated person connected with an institution called the Thana Literary Society, is evidently to exalt Mr. Tilak, the hero of the play, at the expense of those who took an unfavourable view of his writings and conduct." Though the government did not take any criminal proceeding in respect of the play, it directed to take disciplinary action against the author G. G. Soman who was warned for misbehaviour and transferred from Thana. How the spirit of patriotism and loyalty to the cause pervaded the mind of the author is illustrated by his gesture in resigning from government service. How sensitive the government had become to such acts of defiance could be seen from the fact that the government brought within the purview of the Dramatic Performance Act XXX of 1876, thirteen districts of the Bombay Presidency including the district of Thana and declared that no dramatic performance shall take place in any place of public entertainment within the limits of the areas specified except under licence. The performance of *Bandhavimochan* alongwith certain other dramas was altogether banned.

In the midst of these developments many parts of the country including Bombay Province were afflicted by famine in 1907-08 as a result of inadequate rainfall. In the meanwhile slow-moving process of constitutional reforms was working itself out in the British Parliament. The outcome was the Morley-Minto reforms of 1909 which did little to assuage public opinion and further estranged the people and the government. Lord Minto made it very clear that the government had no intention of establishing a democratic form of government in the country and it is not intended to transfer any power to Indians. The consequent wave of discontent resulted in the imprisonment of many political leaders. Almost the first front of the new Reforms was the Press Act of 1910 which effectively suppressed every nationalist paper.

It may be noted here that the policies of the government were dominated by the principle of "divide and rule" and this principle was

more directed towards creating a rift between the Hindus and Muslims. Many parts of the country had to suffer due to this policy of the government and many innocent lives were lost when communal riots erupted in various parts of the country. The district of Thana was not an exception. With a view to bring the two communities on a common platform of national understanding, in the year 1911 determined efforts were made by some Hindu and Muslim leaders in that direction. As a matter of fact the Muslims in the country were neither influenced by National Movement nor had they enthusiastically joined the Congress. However the Unity Conference by a resolution defined its object as the attainment of self-government under the British Empire. The Congress session of Karachi endorsed the above declaration.

In August 1914 war broke out in Europe. There was enthusiastic support for the war effort but little did the Indians expect at that time that the reward for so lively an effort would be so little. The Government of India in 1915 passed the Defence of India Act which shattered any hope the Indian political leaders might have nurtured about it. Under these circumstances the Nationalist forces in the country decided to reconcile the dividing lines in Indian political life which led to the establishment of the Home Rule League in 1916 aimed at the attainment of *swaraj* by all constitutional means. Mrs. Besant and Tilak toured the country to explain the objectives of the movement. Even the Congress and the Muslim League after their session at Lucknow in 1916 forged a united front to countenance the imperial policies of the government which was now in a belligerent mood. In the face of the gathering momentum of the Home Rule League movement the government let loose a reign of terror. The movement caught public imagination and even the student population was affected. The district of Thana did not lay behind in this great national upsurge. In 1917 Montague took office as the Secretary of State for India and made his famous declaration of August 20, 1917 outlining the desire of the government of introducing responsible government in India. However the hollowness of the declaration soon became evident when the government appointed a committee under the chairmanship of Justice Rowlatt to enquire into criminal conspiracies and the spread of revolutionary associations in India. The Calcutta Congress voiced concern at these new developments. In the meanwhile the Montague-Chelmsford Report was presented to the Parliament and the promises it contained, though half-hearted, were nullified by the unmistakable repressive measures suggested by the Rowlatt committee which recommended trials without a jury for political cases. The war ended in 1918 and brought in its wake epidemics which took a heavy toll. It was now that the Rowlatt Bill

was passed which raised a storm of protest all over the country and the expeditious manner in which it was passed contracted unfavourably with the preparation of the bill embodying the suggestions made by Montague-Chelmsford Report. It was now that the voice of Gandhiji began to be felt in the politics of the country. His activities in Africa were heartily blessed by Gopal Krishna Gokhale and when he returned to India in 1914 he was hailed as the votary of truth and *Ahimsa*. In the Khilafat conference of November 1919 Gandhiji expounded his policy of non-co-operation with government as a political weapon but the stalwarts in Congress like Tilak, Das and Nehru had their own misgivings regarding Gandhian ways and programmes. Gandhiji had implored the viceroy not to give assent to the Rowlatt Bill, which went unheeded and he therefore proposed *satyagraha* which found wide-spread support all over the country. However it brought on the tragedy of Jalianwala Bagh which forced Gandhiji to suspend the movement. At this time India suffered a tragic loss in the death of Lokamanya Tilak, a great scholar and a fearless leader of extraordinary abilities. His death was mourned throughout the country and the people of Thana paid their homage to the departed leader. With the death of Tilak the era of vigorous extremism in the Congress may be said to have ended.

It was in September 1920 that a special session of the Congress was held in Calcutta which endorsed Gandhiji's resolutions on Hindu-Muslim unity and the policy of non-violent non-co-operation in spite of opposition from stalwarts like Pal and Das. In the full session held at Nagpur in 1920 many other important resolutions which were destined to have a salutary effect on the politics of the country in the years to come were passed, one among them being the linguistic principle for the re-alignment of the provinces. It may be noted here that though Bombay was the premier city in India blessed by the leaders of all the political parties, Poona continued to be the centre of political activities with many a revolutionaries and politicians drawing inspiration from its past traditions and glory. With the passing away of Tilak, though Poona continued to be the parallel centre of political activity alongwith Bombay, it relatively lost its former place and importance. The people of Poona known for their maturity and political judgement had now to adapt themselves to the changing political scene in the country dominated by Mahatma Gandhi with his controversial weapons of non-violent non-co-operation. It was first expected that Mahatma Gandhi would not find favour with the political thought in Maharashtra nurtured in the revolutionary traditions of Lokamanya Tilak. However these fears proved unfounded and Mahatmaji found support in the younger generation not necessarily

adept and experienced in politics. If like the rest of India, Maharashtra was to stand solidly behind Gandhiji it was necessary that an organization that would bring the new leaders of the movement together should come into existence in Maharashtra. The idea did not strike all but caught the imagination of a few only. Such an organisation was also necessary to mobilise man-power and monetary resources and in Maharashtra though the former was in abundance, the latter was unfortunately lacking. Immediately a temporary committee with N. C. Kelkar as its president was established in January 1921. This later developed into Maharashtra Prantik Parishad the first meeting of which was held in Bassein in May 1921. About 1,500 representatives attended the conference. Dr. Munje presided over the conference whereas Mr. Jamnadas Mehta was the chairman of the reception committee. The conference began with a resounding note with Mahatma Gandhi gracing the occasion by his presence. The conference supported the *satyagraha* in Mulshi *peta* of Poona district and voted in favour of non-co-operation. The fact that there were many amendments to the original resolution supporting *satyagraha* shows that the controversy between the co-operationists and non-co-operationists was not finally settled in Maharashtra. The *satyagraha* and non-co-operation thus received spontaneous response from Thana district as from other parts of Maharashtra. With the dawn of the year 1922 Gandhiji was ready with the mass civil disobedience but tragedy at Chauri-Chura where a few constables were killed by an angry mob forced Gandhiji to withdraw the civil disobedience movement which was to be launched all over the country. However his promise of attaining *swarajya* within a year fell through and a short of lull spread over the entire programme of the Congress. After the Gaya session of the Congress in 1923 the Swarajist party was formed by Das and Motilal Nehru to carry the fight into the legislature. The 1923 elections under the reforms of 1919 brought the Swarajists in substantial strength in the Provincial Councils and the Central Assembly. One of the prominent citizens of Thana Shri Govindrao Pradhan (later Sir), one of the leading legal practitioners, was elected to the Bombay Council on the ticket of the Swarajist party. Subsequently he rose to be the member of the cabinet being in charge of Forest, Excise and Agriculture and later in charge of the local self-government. He continued to be the member of the cabinet till 1927 when he had the distinction and honour to be the Finance Minister of the then Bombay Presidency which distinction he enjoyed from 1928 to 1932. It is worthy to note that Shri Pradhan dominated the political life not only in the city of Thana but for that matter of the areas round-about Thana city by his intelligence, astute judgement and excellent political acumen. He was

a member of the Thana municipality from 1901 and it was he who suggested numerous schemes for the development of Thana city which he said would automatically help in the all-round progress and development of Bombay of which the Thana city was the adjunct.

To return to our narrative, the attitude of the Swarajists created a tussle between them and the non-changers within the Congress party. It may also be noted that the diarchy introduced by the Government in the provincial administration failed to work. Communal clashes also occurred in many parts of the country with the virtual estimation of the Khilafat movement. In these circumstances a rift began to appear among the Swarajists, especially in the Marathi districts of Madhya Pradesh and Bombay with many a Swarajists declaring themselves to be in favour of responsive co-operation. Motilal Nehru denounced this deviation from the accepted stand of the Congress and declared that Maharashtra was a diseased limb of the Swarajist party and he was quite prepared to amputate it. This, however, had no effect on the Maharashtra Swarajist Party. The responsive co-operationist group formed their own party under the presidentship of M. R. Jayakar. In the 1926 election Congress was returned in reduced strength. In 1927 the government declared the appointment of an all white Reforms Commission headed by Sir John Simon. The reaction from all the parties was of spontaneous denouncement of the commission and the day the commission landed on 3rd February 1928 was observed as a day of mourning all over India. The commission was met with boycott wherever it paid a visit. In 1929 the commission submitted its report when the Labour government offered to invite leaders of all political parties for a Round Table Conference which the Indian leaders considered as too late. Gandhiji declared that *swarajya* is now to mean complete independence. In protest against the report of the commission, meetings were held at Virar, Sopara, Agashi and a number of other places. Youth organizations were also established all over the district. The call for the struggle came from the Lahore Congress and the response was tremendous. The vibrations of the monumental political convulsions in the country were felt in distant parts of the country with even the local bodies not lagging behind. The tri-colour went up the building of the Thana municipality at the hands of Shri D. M. *alias* Nanasaheb Damle, the vice-president. It may be noted that Shri Damle suffered imprisonment for participating in the salt *satyagraha* which alongwith forest *satyagraha* was observed all over the country after the call to the effect was given by the Lahore Congress. The Government quickly arrested the leaders and used all repressive measures at its command. The Press Ordinance was issued demanding securities from newspapers. In the *satyagraha* movement

students played a splendid role. The Government now arrested Gandhiji and declared the Congress Committees as unlawful assemblies. The district of Thana was not far behind in the *satyagraha* movement and the year 1930 could be regarded as most eventful in the history of Thana. In January of that year a meeting of the agriculturists in the Vasai taluka decided to pay only the first instalment of the revenue in view of the unsatisfactory reply received from the Government on the memorandum submitted protesting against the unfair enhancement of the land revenue. In response to the call for *satyagraha* against the forest and salt lands the Thana District Congress Committee opened its *satyagraha* centre at Arnala where Sarvashri Jamnadas Mehta, D. V. Gokhale and Abhyankar sold salt prepared by them. On April 15 a meeting was held at Virar under the chairmanship of D. V. Gokhale in which a call to break the salt laws was given. Seventy-five people participated in the *satyagraha*. The Government personnel stationed at Arnala for arrangements was boycotted by the local population. In Kalyan also a meeting was organised under the chairmanship of Appasaheb Bhopatkar when about 2,000 people were present. A procession was also taken out to the Kalyan creek where again the salt law was broken. At various places, viz., Palghar, Vasai, Bhiwandi, etc. the salt law was broken and people in hundreds participated in the ritual. It was perhaps for the first time that people collectively defied the laws of the Government. This spirit of defiance spread in all stratas of the society with the lawyers attending the courts in *Khadi* caps, with the students all over the district boycotting the schools and taking out processions, and the traders taking an oath not to sell foreign goods. There was also picketing on liquor shops and a number of volunteers were sent to prison. When these events were taking place all eyes were revetted on the Round Table Conference which concluded on 19th January 1931. Now Gandhiji was released and held talks with Lord Irwin, the Viceroy, of which the Gandhi-Irwin pact was the result. The Government agreed to release all political prisoners and Gandhiji suspended the civil disobedience movement. The Government however did not stick to the provisions of the Pact. Three revolutionaries, viz., Rajguru, Bhagatsingh and Sukhdev were executed and moreover *satyagrahi* prisoners were not released. Gandhiji did attend the Round Table Conference but returned to India totally disappointed when he saw its proceedings logged down by the cynical self-seeking of many of the Indian representatives. The Government again let loose a reign of repression and terror and Gandhiji now appealed to the nation to don the mantle of civil disobedience again. A new wave of enthusiasm engulfed the masses with women participating in large numbers and

the civil disobedience movement continued with unabated vigour. In these circumstances the Congress decided to hold its session at Delhi but most of the national and provincial leaders were put behind the bars by the Government. The Government also adopted the tactics of terrorising the political workers by treating them brutally in the prisons, which aroused nation-wide sympathy and angry reaction on the part of the people. It was, however, the communal award which tried to drive a wedge in the Hindu community by alienating the Harijans from the rest of the Hindus which provoked Gandhiji into launching upon his historic fast unto death to prevent this. The nation spent six anxious days till the Poona Pact was made under which separate electorates for the Harijans were done away with. In the wake of this had come the white paper which contained the same obnoxious features of the Round Table Conference and which was denounced by the Congress. The Congress Session of 1934 was held in Bombay. The president-elect of the session Dr. Babu Rajendra Prasad was accorded a grand reception at Thana and the Thana municipality gave him an address of welcome. It may be noted that the civil disobedience movement, which had dragged on for such a long time, had lost its vigour and had become a spent force. The Congress leaders were now engaged in evolving an alternative policy to end the state of suspended animation of civil disobedience and it now decided upon suspending the movement and re-entry into councils.

The stage was now set for the inauguration of the Government of India Act, 1935. The Congress swept off the polls everywhere and in 1937 the first popularly-elected ministry was formed in the Bombay Province. Among the notable elected was N. D. Devghekar from Thana district south constituency as also Govindrao Vartak. The ministry introduced many reforms and it appeared that the run of the ministry would be smooth and it would be able to achieve much. It was during the tenure of the ministry that Sawarkar, who was undergoing penal servitude, was released and was given a befitting reception at Thana. However the popular expectations about the functioning of the ministries were belied by the bureaucratic attitude of the Government. The changing conditions were discussed in the Congress Sessions at Haripura and Tripuri. To add to the difficulties of the popular ministries was the attitude of the Muslim League which was again raising the bogey of communalism. In the meanwhile the Second World War broke out and India against her wishes was dragged into the throes of war. The Congress offered its whole-hearted support to the war-efforts provided the British Government declared its war-aims. The government however failed to grasp the impact of the situation and allied itself with the Muslim League whose attitude was positively

anti-national and non-co-operative. The result was total estrangement between the Government and the Congress, which truly reflected the mass of the people. Under the circumstances the resignation of the Congress ministries was inevitable. The Congress working committee which met at Wardha in 1939 gave a call to the people to be ready for the ultimate struggle for the achievement of complete independence. It was at this time that the Muslim League leader Mr. Jinnah brought forth the idea of a separate state for Muslims declaring that the Hindu-Muslim question was not a national but an international one. The Congress offered its conditional support to the British in their life and death struggle against Hitler but the British Government came out with what became known as the August offer which was nothing compared to what the Congress demanded. It was naturally rejected. Frustrated in its attempts to accommodate with the Government the Congress gave a call for civil disobedience but restricted it to individual *satyagraha* and not mass movement with a view not to embarrass the government. Co-operation from the League would have altered the entire situation but the League persisted in its demand for Pakistan. The war situation was now deteriorating and in its wake therefore came the Cripps' offer which was vague in its contents and unsound in its principles and was again rejected by the Congress. Winston Churchill, the British Prime Minister, by his attitude in no way helped ease the tension in the overall situation. The Congress therefore decided to force the issue by launching a nation-wide struggle and the whole country was soon engulfed into the storm of Quit India Movement which started at the All-India Congress Committee meeting in Bombay in August 1942. The Government resorted to repression by arresting the national leaders in the early hours of 9th August. The response to the movement was spontaneous almost all over the Bombay Province and the Thana district was no exception to it. The greater national movement had its repercussions in the local affairs also with the municipal members of the Thana municipality submitting their resignations and responding to the call of the Congress by passing similarly-worded Quit India resolution. The people of Thana district and especially Thana town experienced the thrills and throes of this national upsurge which began in its close proximity of Bombay which was for a time cut off from the outlying Thana district with the burning of government buildings, blowing of bridges and power houses which signalled the violent form the movement appeared to take. The Government became panicky and adopted repressive measures to stifle the onrush of the movement including indiscriminate firing and shooting of the innocent men, women and children. Thousands were put behind the bars and hundreds suffered martyrdom. Pitched battles were fought between the

violent mobs and the police but in the ultimate analysis brute strength won over the leaderless and somewhat indisciplined and disorganised masses of people. The movement now went underground but appeared to have lost its initial vigour though attempts at sabotage did take place here and there. Throughout the years 1943 and 1944 the national leaders languished in prison and the arrest continued. In the meanwhile the war took a favourable turn for the allies with victory over Germany in Europe followed by the complete surrender of Japan, after the atomic bombing of Hiroshima and Nagasaki. In this situation there were signs that efforts would be made to break new ground and do something concrete to resolve the Indian tangle. In the wake of it came the Wavell plan. The leaders were freed to enable consultation and negotiation but again the adamant attitude of Jinnah, not so much to acquire power for himself as to deny it to others, resulted in the failure of the Wavell Plan. It was at this time that far-reaching political changes took place in Great Britain with Conservatives being replaced by the Labourites headed by Atlee. The new premier decided to send a parliamentary delegation to India to study the situation and at the same time the viceroy announced his decision to hold elections in India. The elections resulted in a spectacular success for Congress in the Bombay Province and in 1946 a new ministry was formed. In these circumstances the parliamentary delegation arrived with Congress and League both joining in discussions with it. The only point of agreement was the setting up of a constituent assembly to draft a constitution for India. Again Jinnah adopted a frustrating attitude claiming the right of the League to nominate Muslims which the Congress rightly refused to concede. The League threatened direct action which was directed not so much against the British but against the Hindus in the provinces where the League had won a majority. Though in the larger national interest the claim of Congress for unity between Hindus and Muslims was totally pertinent and justifiable, the Congress never succeeded in convincing the Muslim majority of the rightness of its approach which the Muslim League could easily do in regard to its claim as the sole representative of the Muslims. To a student of history it may appear that the belated acceptance of the Muslim League option should have come a shade earlier which could have prevented lot of blood-shed that resulted by the communal monster let loose by the League in the provinces where it had majority. There were isolated cases of communal out-burst in Bombay Province also. In this situation Lord Wavell invited twelve leaders of his choice to form a Government. This was something Jinnah had not expected and he gave in by sending five of his nominees, a position totally unacceptable to the Congress. The intention of the British to divide

India was clear and the League was hand in gloves with it. Wavell was now replaced by Lord Mountbatten, a suave but cunning viceroy. Jinnah again played into the hands of the British by fomenting communal trouble to discredit the Congress which was now convinced that freedom is possible only by accepting the division of India and though Jinnah became the architect of Pakistan, he proved to be the destructor of undivided India. The Congress ruefully accepted the inevitable as the only alternative to hasten the departure of the British. Freedom came on 15th August 1947. The first popular ministry was headed by Balasaheb Kher as the chief minister. In 1956 as per the recommendations of the State Reorganisation Commission, the former provinces were reorganised. The former districts of the Central Provinces constituting the Vidarbha region and those of the State of Hyderabad constituting the Marathwada region were added to the Bombay province which still retained its districts of Gujarat. Thana district thus formed part of the bilingual State of Bombay. In 1960 the bilingual State of Bombay was bifurcated and the present State of Maharashtra came into existence headed by Shri Y. B. Chavan as its chief minister. The State since continued to prosper under the successive able leadership of late Shri Kannamwar, Shri V. P. Naik, Shri S. B. Chavan, Shri Vasantao Patil and Shri Sharad Pawar, the present chief minister of the State.

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महाराष्ट्र नयन



सत्यमेव जयते

CHAPTER 3—THE PEOPLE*

POPULATION

THE DISTRICT RANKS FOURTH IN THE STATE IN RESPECT OF ITS POPULATION SIZE as per the Census of 1971 while it stood eighth in this respect in 1961. Population of the district, according to the 1971 Census, is 22,81,664 (males 12,04,855, females 10,76,809) and is distributed over thirteen talukas. Table No. 1 gives the taluka-wise distribution of population in the district in 1971.

Table No. 1 shows that the total population of 22,81,664 is spread over the district area of 9,553 square kilometres which works out to about 239 persons to a square kilometre. Of these, 14,54,915 persons or 63.76 per cent are inhabited in the rural area of 9,349.5 square kilometres and the remaining 8,26,749 persons or 36.23 per cent in the urban area of 203.5 square kilometres.

Growth of population : The old *Thana District Gazetteer*** has to say the following about the growth of population since 1819 :—

“In 1819 and again in 1820 severe outbreaks of cholera so lowered the number of the people, that for ten years the population is said not to have recovered its former strength. Since the beginning of British rule the people have been four times numbered, in 1846, 1851, 1872, and 1881. In 1846, excluding the three Kolaba subdivisions of Sankshi, Rajpuri, and Raygad, the total population amounted to 554,937 living in 117,705 houses, or an average of five persons to each house. Of the whole number 287,602 or 51.83 per cent were males and 267,335 or 48.17 per cent were females. Of the total number 498,625 or 89.85 per cent were Hindus and 23,661 or 4.26 per cent Musalmans, that is at the rate of twenty-one Hindus to one Musalman. There were besides 30,147 Christians, 1,842 Parsis, and 662 Jews. The 1851 census, compared with that of 1846, showed an increase in population from 554,937 to 593,192 or 6.89 per cent. This increase was found over all parts of the district. Of the whole number living in 121,952 houses or five persons in each house, 307,188 or 51.78 per cent were males and 286,004 or 48.21 per cent females. Hindus numbered 533,374 souls or 89.91 per cent

*A major portion of this chapter has been contributed by Shri T. V. Parvate, Bombay.

***Gazetteer of the Bombay Presidency*, Vol. XIII, Part I, Thana, 1882, pp. 69-70.

and Musalmans 25,157 or 4.24 per cent, that is at the rate of twenty-one Hindus to one Musalman. There were besides 31,850 Christians, 2,182 Parsis and 629 Jews. The 1872 census showed an increase from 593,192 to 847,424 or 42.85 per cent. Of the total number 765,886 or 90.37 per cent were Hindus, 38,835 or 4.58 per cent Musalmans, 37,029 or 4.37 per cent Christians, and 5,674 or 0.67 per cent Others. The 1881 census showed a slight increase of 2.69 per cent, the total population of the district amounting to 900,271 or 212 to the square mile."

Variation in population : The decade-wise growth and variation in population of the district since 1901 is shown below :—

Year	Population	Variation	Rate of variation
1901	6,65,326	....	....
1911	7,21,323	+ 55,997	+ 8.42
1921	7,13,228	- 8,095	- 1.12
1931	7,87,664	+ 74,436	+ 10.44
1941	8,82,321	+ 94,657	+ 12.02
1951	12,82,572	+4,00,251	+ 45.36
1961	16,52,678	+3,70,106	+ 28.86
1971	22,81,664	+6,28,986	+ 38.06

It will be evident from the above statement that except for the decade of 1911-21 when the severe influenza epidemic took a heavy toll of life, the population had increased all along although not at a uniform rate. As conditions improved after 1921, there had been a distinct change in the trend of variation since then. In 1921-31 and 1931-41, the rate of growth had been consistent and moderate which stood at 10.44 and 12.02 per cent, respectively. The very high rate of growth recorded during 1941-51 (45.36 per cent) was due partly to the rapid industrial growth, the over-flow of population from Bombay City and the post-partition immigration of a large number of displaced persons from Pakistan. In the decade 1951-61, the growth had been at a lower rate (28.86 per cent) which was, however, higher than the State average.

During the decade 1961-71, the district population increased at a higher rate (38.06 per cent) as compared to the 1951-61 rate of variation. The very rapid expansion of industries in Thane-Kalyan region contributed to this high rate of growth.

The 1961-71 decade variation for the district and each taluka is given below :—

District/Taluka	Percentage variation	District/Taluka	Percentage variation
Thane District	.. +38·06	7. Mokhada Taluka	.. +15·46
1. Thane Taluka	.. +78·11	8. Wada Taluka	.. +19·24
2. Vasai Taluka	.. +28·32	9. Bhiwandi Taluka	.. +51·21
3. Palghar Taluka	.. +19·69	10. Shahapur Taluka	.. +27·00
4. Dahanu Taluka	.. +17·46	11. Murbad Taluka	.. +18·08
5. Talasari Taluka	.. +24·31	12. *Kalyan Taluka	.. ....
6. Jawhar Taluka	.. +16·43	13. *Ulhasnagar Taluka	.. ....

In 1961-71, Thane taluka recorded the highest increase (78·11 per cent), while Mokhada recorded the lowest increase (15·46 per cent). The higher rates of growth in Bhiwandi and Thane talukas are due to the growth of industries in these areas. This pattern of growth reflects the economic growth of Greater Bombay which has inevitably found its dispersal to the peripheral zone in Thane district.

The net percentage increase in 1971 over that in 1901 is higher for the district, viz., 242·94 per cent than for the State, viz., 159·97. The same is shown below :—

1901-71			
Thane District			Maharashtra State
Total	...	242·94	159·97
Rural	...	139·20	114·54
Urban	...	1,348·35	388·34

Urban population : Thane district has the highest number of towns, i.e., 24 in the State. The percentage of urban population in the district is 36·23. The table No. 2 shows the decade growth of urban population for each town in the district.

* In 1969, a part of Kalyan taluka comprising four towns and 90 villages with a total area of 343·2 square kilometres was separated and formed into a new taluka, viz., Ulhasnagar. Hence the percentage variation in 1961-71 for these talukas is not calculated.

Table No. 2 shows that four new towns, viz., Majivade, Manikpur, Badlapur and Kulgaon were added in 1971. The area of Thane, Vasai and Jawhar towns decreased in 1971 to 26.16, 8.0 and 9.07 square kilometres respectively, from 26.75, 8.13 and 19.32 square kilometres in 1961. This decrease is mainly due to the revised method of computation. The increase in the area of Ambarnath from 16.81 square kilometres in 1961 to 18.13 square kilometres is due to territorial change in the municipal area.

The change in the number of towns, the rate of decade variation in urban population, the percentage of urban to total population at each census since 1901 for the district and the State are shown below :—

Year	Thane District			Maharashtra		
	Number of towns	Rate of variation in urban population	Percentage of urban population to total population	Number of towns	Rate of variation in urban population	Percentage of urban population to total population
1901	6	....	8.58	219	....	16.59
1911	6	+ 6.80	8.45	232	+ 0.99	15.13
1921	7	+ 21.83	10.41	238	+ 18.72	18.50
1931	6	+ 11.50	10.51	258	+ 15.54	18.60
1941	6	+ 22.35	11.48	266	+ 27.11	21.11
1951	22	+ 273.56	29.51	383	+ 62.42	28.75
1961	20	+ 31.92	30.21	266	+ 21.32	28.22
1971	24	+ 65.57	36.23	289	+ 40.75	31.17

The net growth in urban population of the district in 1971 over that of 1901 is 1,348.35 per cent as against 388.34 per cent for the State.

In 1911, the proportion of urban population decreased for the district. Since then it gradually increased to an all-time high value in 1951 for the State. During 1951-61 decade, the proportion of urban population increased in the district though it slightly decreased for the State as a whole. The number of towns increased continuously since 1901 till 1951 for the State whereas the number of towns in the district almost remained constant till 1941 and recorded a sharp increase in the year 1951. The drop in the number of towns in the district in 1961 was due to the de-classification of six towns because of the re-definition of urban areas. The six de-classified towns were Bordi, Chinchani, Kelwa, Agashi, Mahim and Kolshet. Naupada town was merged in Thane in 1961 and five new towns, viz., Malyan, Sandor, Shahapur, Katemanivali and Mohone were added. The net increase of 65.57 per cent in

the district urban population during the last decade is due to the change in the definition of urban areas and addition of four new towns to the district list.

Thane, Ulhasnagar and Kalyan are the three important towns in the district. The population of Thane City agglomeration comprising Thane, Majivade, Kalwa and Bhiwandi increased by 1195.05 per cent in 1971 over that in 1901. Ulhasnagar City agglomeration which includes Ulhasnagar, Kalyan, Ambarnath, Dombivli, Mohone and Katemanivali records an increase of 3587.64 per cent in 1971 over that in 1901.

This rapid growth-rate in these two agglomerations may be mainly attributed to the large influx of population on account of fast growth of industrialisation in Thane, Kalyan, Ulhasnagar and Ambarnath.

The percentage of urban population is the highest in Ulhasnagar taluka (82.86 per cent), while Thane taluka having 65.63 per cent and Kalyan taluka having 62.56 per cent rank second and third, respectively. Three talukas, viz., Talasari, Mokhada and Murbad are completely rural. The proportion of urban population in remaining talukas varies from 5 to 33 per cent.

Rural population : According to 1971 Census, 63.77 per cent of the total district population is inhabited in rural areas as against 68.33 per cent for the State.

Table No. 3 shows the number of inhabited villages and their population according to various size-groups in 1971.

The percentage distribution of rural population and of villages of various population sizes for the district and the State in 1971 is given below :—

Size-Class	Thane district		Maharashtra State	
	Percentage of villages to total number of villages	Percentage of population to total rural population	Percentage of villages to total number of villages	Percentage of population to total rural population
(1)	(2)	(3)	(4)	(5)
Less than 500	.. 40.74	12.88	39.52	10.68
500—999	.. 32.37	24.97	29.43	21.80
1,000—1,999	.. 18.20	26.68	20.79	29.40
2,000—4,999	.. 7.05	22.20	8.67	25.87
5,000 and above	.. 1.64	13.32	1.59	12.25

Villages with less than 1,000 population are 73.11 per cent of the total number of villages and have 37.85 per cent of rural population. The corresponding figures for the State are 68.95 per cent and 32.48 per cent, respectively. Villages with more than 1,000 population are 26.89 per cent of the total number of villages in the district and account for 52.20 per cent of the district rural population. The corresponding figures for the State are 31.05 per cent and 67.52 per cent, respectively. The rural population is found to be mainly concentrated in villages with population between 500-999.

The 1971 Census statistics about area, number of villages and average population per inhabited village, and the number of villages per 100 square kilometres of rural area are given in table No. 4.

The rate of variation in rural population and the percentage of rural population to total population in the district and the State since 1901 are given in the following statement :—

Year	Thane district		Maharashtra State	
	Rate of variation in rural population	Percentage of rural population to total population	Rate of variation in rural population	Percentage of rural population to total population
(1)	(2)	(3)	(4)	(5)
1901	.. ....	91.42	....	83.41
1911	.. + 8.57	91.55	+12.68	84.87
1921	.. — 3.24	89.59	— 6.77	81.50
1931	.. +10.31	89.49	+14.77	81.40
1941	.. +10.80	88.52	+ 8.54	78.89
1951	.. +15.76	70.49	+ 7.72	71.25
1961	.. +27.57	69.79	+24.51	71.78
1971	.. +26.15	63.77	+22.22	68.81

The net increase in the rural population of the district in 1971 has been 139.20 per cent over that of 1901 and 127.70 per cent over that of 1921.

Density of population : The density of population in the State and the district for 1961 and 1971 is given in the following statement :—

State/District/Taluka	(1)	1961		1971	
		Density per square kilometre (2)	Percentage of district population (3)	Density per square kilometre (4)	Percentage of district population (5)
Maharashtra State	..	334	....	164	....
Thane District	..	465	100.00	239	100.00
<i>Talukas</i>					
Dahanu taluka	..	428	9.64	194	8.20
Talasari taluka	..	448	2.60	215	2.34
Mokhada taluka	..	195	2.85	87	2.39
Jawhar taluka	..	265	4.98	119	4.20
Palghar taluka	..	423	10.79	195	9.35
Wada taluka	..	248	4.26	114	3.68
Vasai taluka	..	817	10.05	405	9.34
Bhivandi taluka	..	617	9.84	360	10.78
Shahapur taluka	..	178	6.83	87	6.28
Murbad taluka	..	243	5.10	111	4.36
Kalyan taluka	..	1,394	21.78	843	12.03
Thane taluka	..	1,581	11.28	1,087	14.56
Ulhasnagar taluka	831	12.49

Within the district, the density of population in 1971 varied from 1,087 per square kilometre in Thane taluka to 87 per square kilometre in Shahapur and Mokhada talukas. The variations in density are mainly attributable to the growth of industries and employment in tertiary sectors in some parts of the district. Areas adjoining Bombay have large densities as also coastal talukas because of intensive cultivation of garden crops and fishing industry.

Population by Age-groups : The proportion of population by broad age-groups in 1951 and 1961 for the district is given below :—

Age-groups			1951		1961	
			Males	Females	Males	Females
0-4	..	..	13.29	13.94	14.61	15.80
5-14	..	..	23.81	24.00	25.58	26.02
0-14	..	..	37.10	37.94	40.19	41.82
15-34	..	..	36.03	35.59	33.88	34.19
35-59	..	..	23.58	22.08	21.95	19.56
15-59	..	..	59.61	57.67	55.83	53.75
60 and over	..	..	3.29	4.39	3.98	4.43
Total	..	..	100.00	100.00	100.00	100.00

Table No. 5 gives the population of rural and urban areas by age-groups as per 1971 Census, whereas distribution of district population by different economic activities according to age-groups is given in table No. 6.

Dependency ratio : The percentage of dependents (age-groups 0-14 and 60+) to self-supporting persons in the age-group of 15-59 has an economic significance. The dependency ratios of youths (0-14) and aged persons (60+) are given below for 1951 and 1961 for the district and the State separately :—

Thane District				Maharashtra		
	Youth	Aged	Total	Youth	Aged	Total
1951 Total ..	63.9	6.5	70.4	69.9	9.3	79.2
1961 Total ..	74.7	7.7	82.4	75.2	9.7	84.9
Rural ..	79.8	8.1	87.9	80.6	10.8	91.4
Urban ..	64.0	6.8	71.0	63.1	7.3	70.4

Sex-ratio : The following statement shows the changes in the sex-ratios during the period 1901 to 1971 for the rural and urban areas of Maharashtra and of the district :—

		Year							
Total/ Rural/ Urban		1971	1961	1951	1941	1931	1921	1911	1901
Maharashtra State	Total ..	930	936	941	949	947	950	966	978
	Rural ..	985	995	1,000	990	987	994	1,000	1,002
	Urban ..	820	801	807	810	790	776	796	866
Thane District	Total ..	894	919	920	940	935	937	947	939
	Rural ..	944	964	950	956	953	947	955	944
	Urban ..	812	823	851	830	796	851	871	878

Since 1901, the sex-ratio of the district population varied between 894 and 939 while that of Maharashtra varied between 930 and 978. At each Census, the district has recorded a lower sex-ratio than the State, i.e., the district always had comparatively less females than males. Different rates in rural and urban areas might be due to migration which is more conspicuous in case of males.

The sex-ratios for each taluka in 1961 were as follows :—

District/Taluka			Total	Rural	Urban
Thane District	..	..	919	964	823
<i>Talukas</i>					
Dahanu Taluka	..	..	972	981	893
Talasari Taluka	..	..	1,007	1,007	....
Mokhada Taluka	..	..	960	960	....
Jawhar Taluka	..	..	970	977	856
Palghar Taluka	..	..	982	993	893
Wada Taluka	..	..	969	973	932
Vasai Taluka	..	..	945	956	906
Bhiwandi Taluka	..	..	851	950	949
Shahapur Taluka	..	..	965	967	920
Murbad Taluka	..	..	961	961	....
Kalyan Taluka	..	..	882	939	857
Thane Taluka	..	..	920	898	775

Marital status: The following statement shows the percentage distribution of the district population by marital status for 1951 and 1961 :—

Year	Age-group	Total	Never married		Married		Widowed		Divorced or separated	
			Males	Females	Males	Females	Males	Females	Males	Females
1951	.. 0-14	.. 100	99.71	97.76	0.26	2.17	N. A.	0.04	0.03	0.03
	15-34	.. 100	38.93	11.41	59.72	85.75	1.20	2.56	0.15	0.28
	35-54	.. 100	2.30	1.30	90.78	74.24	6.61	24.20	0.31	0.26
	55+	.. 100	1.32	0.77	74.59	31.58	23.55	67.45	0.54	0.20
	All ages	.. 100	51.58	41.45	45.12	48.18	3.14	10.19	0.16	0.18
1961	.. 0-14	.. 100	99.63	98.16	0.37	1.81	N. A.	0.01	N. A.	0.02
	15-34	.. 100	38.49	12.77	54.81	84.52	1.08	1.88	0.62	0.83
	35-54	.. 100	2.54	0.70	91.72	74.67	5.10	23.71	0.64	0.92
	55+	.. 100	2.52	1.05	77.55	26.66	19.32	71.71	0.61	0.58
	All ages	.. 100	53.76	45.62	43.29	44.41	2.58	9.48	0.37	0.49

During the decade 1951-61, the proportion of "never married" increased both for males and females. There had been a decrease in the proportion of widowed, both for males and females. The proportions of married and widowed were higher in rural areas than in urban areas and the proportion of "never married" was higher in urban population. It might be explained by the slightly higher age at marriage in urban areas.

Table No. 8 shows the distribution of population by marital status for different age-groups.

During 1961-71, the number of "never married" and "married" has increased both for males and females, while the number of "divorced" has decreased both for males and females.

Migration : According to 1961 Census, 9,78,062 persons (5,65,020 males ; 4,13,042 females) accounting for 59.28 of the district population were enumerated at places of birth. This percentage for males was 65.71 while the percentage for females was only 52.28. The difference might be due to women marrying outside their places of birth. This movement of females on marriage appeared to be mostly within the district as the proportion of females born elsewhere in the district was much higher (28.32 per cent) than that of males (11.49 per cent), the number being 2,23,726 for females and 98,782 for males. This high proportion of persons born outside the State could be attributed to the large number of displaced persons from Pakistan, settled at Ulhasnagar and other places in the district.

The percentage of males and females born outside the State to district population in 1961 was 13.05 and 9.68, respectively. This male-female difference in the proportion of those born outside the State was due to large number of workers coming for employment in Greater Bombay and residing in the limits of Thane district.

Table No. 9 gives 1971 statistics of number of persons born in other districts of Maharashtra and enumerated in Thane district.

Classification of number of migrants in the district in 1971, according to their last residence in India and outside India, is given in table No. 10.

Size of the household : A household is defined, in 1971, as a group of persons who live together and take food from a common kitchen, unless the exigencies of work prevent any of them from doing so. It may be composed of related or unrelated persons only.

As per 1961 Census, among the different size-groups, households with four to six members were common (42.80 per cent) than others. The percentage distribution of rural and urban households by their size showed that single and small size households were more prevalent (35.71 per cent) in urban than in rural areas (29.24 per cent). In 1961, the average size of a household was 5.3 in rural areas and 4.9 in urban areas, which increased to 5.6 and 5.12, respectively in 1971. Table No. 11 gives statistics of households classified by size for rural and urban areas as per 1971 Census of housing report.

Table No. 12 gives the average number of persons per room and number of persons per household classified by number of rooms for rural and urban areas of the district.

Languages : The percentage distribution of languages in rural and urban areas of the district in 1961 is given below :—

Language	Percentage to total population			Percentage of each language	
	Total	Rural	Urban	Rural areas	Urban areas
1. Gujarati	.. 4.15	2.87	7.09	48.35	51.56
2. Hindi	.. 2.08	0.65	5.39	21.86	78.14
3. Kannada	.. 0.60	0.16	1.62	18.36	81.64
4. Malayalam	.. 0.38	0.08	1.09	13.58	86.52
5. Marathi	.. 80.42	93.84	49.41	81.44	18.56
6. Sindhi	.. 5.72	0.02	18.87	0.28	99.72
7. Tamil	.. 0.52	0.06	1.58	7.60	92.40
8. Telugu	.. 0.86	0.25	2.28	20.34	79.66

Marathi, the principal language spoken and understood by the majority of people, was the mother-tongue of 80.42 per cent of the population in 1961. In rural areas, Marathi-speakers accounted for 93.84 per cent of the population. They formed only 49.41 per cent of the population in urban areas. Sindhi had the second largest number of speakers and was spoken by 5.72 per cent of the total population of the district. It was spoken mostly in urban areas where its speakers accounted for 18.87 per cent against only 0.2 per cent in rural areas.

The comparative position of languages in 1901, 1951 and 1961 is given below :—

Language	Percentage to total population		
	1901	1951	1961
Gujarati	.. .. 3.50	10.11	4.15
Hindi	.. .. 2.01	2.17	2.08
Kannada	.. .. ....	0.60	0.60
Malayalam	.. .. ....	0.11	0.38
Marathi	.. .. 94.18	74.93	80.42
Sindhi	.. .. ....	6.40	5.72
Tamil	.. .. ....	0.40	0.52
Telugu	.. .. 0.01	1.01	0.86
Urdu	.. .. ....	3.10	4.32
Others	.. .. 0.30	1.17	0.95
All languages	.. .. 100.00	100.00	100.00

In 1901, Urdu-speakers had been grouped under Hindi. Their combined proportion increased from 2.01 per cent in 1901 to 5.27 per cent in 1951 and 6.40 per cent in 1961. The 1951-61 changes in the

proportion of all the languages were due to the transfer of Umbergaon taluka to Surat district of Gujarat State in 1960 and the consequent reduction in the proportion of Gujarati-speakers in the remaining Thane district. Broadly speaking, the proportions of Hindi, Urdu, Gujarati, Tamil and Telugu considerably increased during the sixty years reducing, as a result, the proportion of Marathi from 94·18 in 1901 to 80·42 per cent in 1961. Sindhi was a new addition in 1951 because of the migration of displaced persons from Pakistan. Its proportion was lower in 1961 because some of the displaced persons staying in Ulhasnagar and other camps subsequently dispersed and settled in Greater Bombay.

Table No. 13 gives the 1971 Census population by major mother-tongues (nine languages) in the rural and urban areas as also in the towns in the district.

Population by religion : Table No. 14 shows the taluka-wise distribution of population by religion in the district in 1971.

The comparative position of various religions in 1901, 1961 and 1971 is given below :—

Religion	Percentage to total population		
	1901	1961	1971
Buddhists	2·42	2·51
Christians	3·94	3·88
Hindus	87·76	86·22
Jains	0·53	0·77
Muslims	5·10	6·31
Others	0·25	0·31
All religions	100·00	100·00

The proportion of Christians and Muslims has increased during the last about seventy years. More than two-thirds of the total Christian population, viz., 1,02,976 is concentrated in Vasai taluka, of which a large percentage is in its rural area. Muslims are scattered throughout the district though they are found more in Bhiwandi town. In fact about fifty per cent of the population of Bhiwandi town is that of Muslims.

The proportion of Hindus has gone down from 92·99 per cent in 1901 to 86·22 per cent in 1971. It is partly due to the conversion of some members of the Mahar, Mang, etc. castes to Buddhism. Even the combined proportion of Hindus and Buddhists in 1971 (88·73) is lower than the proportion of Hindus in 1901.

The following statement shows the percentage decadal growth-rate of each major religious community during 1961-71 for the district and the State, separately :—

Religion			Thane District	Maharashtra State
Hindus	..	..	+36.65	+26.98
Muslims	..	..	+70.95	+39.50
Christians	..	..	+36.00	+27.93
Sikhs	..	..	+88.12	+76.52
Buddhists	..	..	+43.23	+17.02
Jains	..	..	+99.38	+44.88
Others	..	..	- 2.90	-14.96
All religions	..	..	+38.06	+27.45

Scheduled Castes : Twenty-four castes are notified as scheduled castes in the district though only eighteen are reported in 1971 Census. Table No. 15 gives the taluka-wise scheduled caste population as per 1971 Census.

The scheduled caste population in the district accounts for 6.96 per cent of the total scheduled caste population in the State, and 1.59 per cent of the total district population.

The comparative position of scheduled castes in the district in 1951, 1961 and 1971 is as follows :—

Year	Percentage of scheduled caste population to total population		
	Total	Rural	Urban
1951	.. 3.01	3.54	2.02
1961	.. 1.37	1.20	1.77
1971	.. 1.59	1.32	2.05

The district has a comparatively lower proportion of scheduled castes. In 1961, the proportion of scheduled castes was reduced to 1.37 per cent because of the conversion of a large number of persons from the erstwhile Hindu scheduled castes to Buddhism. As a result of the change of religion they were not treated as scheduled castes, as the Constitution of India recognises scheduled castes from Hindu and Sikh religions only. The combined proportion of the scheduled castes and Buddhists in 1961 was 3.79 per cent of the total population which was slightly larger than that of 1951.

Of the 24 scheduled castes, not a single person was enumerated as belonging to Garoda, Halleer, Halsar, Shenva, Mukri and Lingader castes in 1971.

Of the scheduled castes reported in the district, the largest number is of Chambhars which was followed by Bhangis and Mangs in the descending order. Baked, Chenna Dasar, Holar, Turi, Tirgar, Meghval and Nadia castes have less than fifteen persons in the district.

Table No. 16 gives 1971 statistics of scheduled caste population in the district by literacy.

About 62.94 per cent of the scheduled caste population are reported to be illiterate. The percentage of literates is the highest among Chambhars, viz., 44.13. Of the total literate Chambhars, 35.61 per cent are females.

The literate among Mahars account for 35.50 per cent of the total literate scheduled caste population. The proportion of literates is, however, much smaller in case of women. The scheduled caste percentage of literates and educated among males account for 47.86 per cent of the total scheduled caste males while the percentage of literate and educated among females account for 25.13 per cent of the total scheduled caste females in the district.

In general, however, scheduled caste people appear to be taking advantage of the educational facilities and concessions made available by Government. In 1972-73,* the number of such beneficiaries stood at 16,789 of which 10,781 were boys.

Scheduled Tribes : The district is aptly known as the home of aboriginals who are locally known as "Adiwasis". They account for 25.40 per cent of the total district population and are mostly concentrated in rural areas. This proportion is the second largest among the districts in Maharashtra. The district scheduled tribe population accounts for 19.62 per cent of the corresponding total in the State.

Twenty-two tribes are declared as scheduled tribes in the district, of which two, viz., Chordhare and Pomla were not enumerated in 1971 Census.

The taluka-wise population of scheduled tribes in the district is given in table No. 17.

Scheduled tribe population is found in considerable numbers throughout the district though mostly concentrated in Dahanu, Jawhar, Shahapur, Talasafi and Mokhada talukas which are classed as scheduled areas.

*Source.—Bureau of Economics and Statistics, Government of Maharashtra.

The following statement gives the percentage of scheduled tribes to total population in some talukas in the district :—

Taluka		Percentage of scheduled tribes to total population
Palghar Taluka	.. ..	35·12
Dahanu Taluka	.. ..	64·93
Talasari Taluka	.. ..	88·31
Jawhar Taluka	.. ..	88·98
Mokhada Taluka	.. ..	92·62
Wada Taluka	.. ..	48·85
Shahapur Taluka	.. ..	32·01

The comparative position of scheduled tribe population in 1951, 1961 and 1971 in the district is as follows :—

Year	Total scheduled tribe population		Percentage to total district population		
			Total	Rural	Urban
1951	..	2,84,949	18·77	26·89	3·40
1961	..	5,00,558	30·29	41·85	3·58
1971	..	5,79,538	25·40	38·60	2·17

The phenomenal growth in scheduled tribe population in 1961 and 1971 was partly due to the addition of Koli Malhar to the list of scheduled tribes in the district in 1956 which resulted in an addition of about 90,000 in 1961.

Varlis with 2,61,753 persons in 1971 accounting for 45·16 per cent of the district scheduled tribe population are numerically the largest among all the tribes. The percentage distribution of important tribes to the district scheduled tribe population is shown below according to their numerical strength :—

Scheduled tribe	Percentage of each tribe to total scheduled tribe population	
1. Varli	45·16
2. Koli Malhar	17·19
3. Thakur	13·04
4. Kathodi	9·72
5. Kokna	5·69
6. Mahadev Koli	5·12

Of the total scheduled tribe population, 48·15 per cent or 2,79,967 are literate and educated as per 1971 Census.

The distribution of scheduled tribe population by literacy is given in table No. 18.

The Mahadev Kolis are more advanced in literacy than other tribals, while the Kathodis are the most backward in the district.

The percentage of literates among some scheduled tribes in the district in 1971 is given in the following statement :—

Scheduled tribe	Percentage of literates and educated among each scheduled tribe	
1. Mahadev Koli	..	26·60
2. Kokna	..	13·55
3. Koli Malhar	..	10·13
4. Varli	..	8·01
5. Thakur	..	7·21
6. Kathodi	..	3·05

Women from scheduled tribes in the district appear to be more backward as regards literacy as they account for only 13·33 per cent of the total literate population of scheduled tribes.

In 1972-73,* 34,941 students (26,221 boys and 8,720 girls) were granted free educational facilities and other concessions by Government in the district.

In keeping with the changes in Government policy, the Census enumeration has ceased to take cognisance of the many communities, castes and sub-castes among Hindus since 1941. However, the accounts of the numerous castes and sub-castes as noticed previously with their peculiar customs, practices and usages are too precious to be forgotten from the sociological point of view as they provide much material of historical and traditional importance for the student of sociology. In Thane district, especially, it seems that it has been the meeting ground of many foreign, sea-faring and other races with the natives as well as those who came there from the North, East and South India. The aborigines of the hills continue to be what they have been for centuries. The important Parsi community originally came to Sanjan in Thane and from there spread everywhere. The old *Gazetteer of Thana* has recorded in a very pains-taking and exhaustive manner the history, traditions and socio-economic condition of all these people and therefore it is partially reproduced here with changes wherever necessary.

The local or early element in the Thane population is unusually strong. The early tribes are found in considerable numbers throughout the district; they are almost the only people in Kolvan in the wild

*Source.—Bureau of Economics and Statistics, Government of Maharashtra.

north-east and they are the majority everywhere, except in some of the richer coast-tracks in the south and along the broad valleys that lead to the Thal, Malsej and Bhore passes. According to the 1872 Census, the early population of the district included nine leading tribes with a total strength of nearly 3,80,000 souls or forty-five per cent of the total population. These were, in order of strength, Agris 1,20,000, Kolis both sea Kolis and hill Kolis 80,000, Varlis 70,000, Thakurs 55,500, Kathkari 34,000, Dublas 8,600, Vaitis 4,500, Konkans 4,500 and Dhodiahs 3,000. Except the Mahadev Kolis, who are said to have come from the Deccan in the fourteenth century, these tribes seem to have been settled in the district from pre-historic times.

Besides these early tribes, their small dark frame, their love of strong drink, their worship of un-Brahmanic gods, and their want of village communities, show that the Thane Kunbis have a larger strain of local or aboriginal blood than the Kunbis of Gujarat or of the Deccan.

Recent settlers : The additions to the population during historic times may be arranged under four classes, according as they took place under the early Hindu dynasties (B. C. 200—A. D. 1300), during Muhammadan and Portuguese ascendancy (1300-1740), under the Marathas (1670-1818), and since the beginning of British rule. The history chapter gives the available details of the early Hindu conquerors and settlers. Except the Mauryas (B. C. 315-195), the Kshatras (A. D. 78-328) and some of the Anhilvada generals (970-1150) who entered by land from Gujarat, these conquerors and settlers may be brought under two groups, those who came from the Deccan and those who came by sea. Of Deccan conquerors and settlers there have been, of overlords the Andhrabhrityas (B. C. 200—A. D. 200), the Chalukyas (300-500), the Rashtrakutas (767-970), the later Chalukyas (970-1182), the Devgiri Yadavas (1182-1294), and of local rulers the Shilaharas (813-1187). Of immigrants by sea, besides the early Brahman settlers on the Vaitarna and at Sopara, who probably came from Gujarat and Sind, there were very ancient settlements of Arabs ; in the seventh and eighth centuries more than one band of Parsi refugees from Musalman rule in Persia ; from the earliest spread of Islam to the Musalman conquest of the Konkan (640-1350) coast settlements of Arab and Persian traders and refugees ; Solanki conquerors from Gujarat probably in the tenth and eleventh centuries ; and Hindu immigrants from Kathiawar to escape Arab and other Musalman invaders.

The Parsis and the descendants of the Arab and Persian Musalmans still form separate and well-marked communities. But among the names of the present Hindu castes and tribes no sign of the early

Hindu conquerors appears. Some of these conquerors, like the Kshatras, may have been foreigners who never settled in the Konkan, and others, like the Rathods or Rashtrakutas of Malkhed, may have been overlords who rested content with the tribute or the allegiance of the local chiefs. Still there were some, such as the Chalukyas and Yadavs, who were at the head of tribes which came south as settlers as well as conquerors. And though the names of existing castes and tribes bear no trace of these early conquerors and settlers inquiry shows that, except Brahmans, Writers and some Craftsmen, almost all classes are partly sprung from old Rajput settlers, and are careful to keep the names of their clans as surnames and to follow the Rajput rule forbidding marriage between members of the same clan.

The short sea passage, straight before the prevailing fair weather wind, made the Thana coast a favourite resort for refugees and settlers from Kathiawar. It seems probable that some of the early Brahman and Rajput settlers in the Deccan entered it from the west across Thane and through the Thal and Bhore passes. In later times one large settlement seems to have supplied the foreign element in the Palshe Brahmans, Patane Prabhus, Pachkalshis, Chavkalshis, Somvanshi Kshatris, Sutars, Malis, and according to their own statement in some of the Agris and Bhandaris, in fact in almost all the upper class coast Hindus. Except the Agris and Bhandaris, whose strain of late or foreign blood can be but small, these classes are closely connected. The Palshe are their priests, and the Prabhus, though with probably a much larger foreign element, seem to have a common origin with the Pachkalshis, Chavkalshis, Sutars, Malis and Somvanshi Kshatris. According to one account they came from Mungi Paithan in the Deccan under Bimb, a prince of the Devgiri family who established a chiefship at Mahim near Bombay, which after rising to high prosperity, was over-thrown by Muhammad Tughlik in 1347. The correctness of this story is doubtful. There is no record that Mungi Paithan was sacked by the Musalmans. If it was sacked it could hardly have been before 1318, as up to that time after their first submission, the Musalmans were on friendly terms with the Yadavs of Devgiri. Even had he fled on the first Musalman invasion in 1297, Bimb's dynasty can have lasted for only fifty years, too short a time for the development which took place in Salsette under their rule. Again the Prabhu records and traditions agree that their first settlements were on the coast in Kelva-Mahim, Bassein and Salsette, and this favours the view that they came into the Konkan from Gujarat and not from the east. In support of this view it may further be noticed that, though the Prabhus speak Marathi in their homes, it is an incorrect Marathi, and they can call many articles of house furniture by Gujarati and not

by Marathi names. Again though they have lately taken to use surnames, Prabhus like Gujaratis have really no surnames, and lastly the turban and shoe which in Bombay bear the name of Prabhu are Gujarati and not Marathi in style. This view of the origin of the Prabhus is supported by the fact that the Palshes, their original priests, follow the White or Gujarat Yajurved, and, as is the rule in Gujarat, forbid marriage between those whose mothers' fathers belong to the same family-stock. As regards the date of the settlement no direct evidence has been obtained. Still it is worthy of note that according to the Musalman historian Ibn Asir, Bimb was the name of the nephew of the Anhilvada king, who came to the relief of Somnath when it was attacked by Mahmud of Ghazni (1025), and that according to those accounts, when Somnath fell large numbers of its people escaped by sea.

Of Musalman ascendancy (1320-1700), traces remain in the present Musalman population, and perhaps in the class of Hindu writers known as Kayasth Prabhus. Of the Portuguese rule along the coast, from 1530 to 1740, there remains in Salsette, Bassein and Mahim, the important class of Christians, chiefly converted Brahmans, Prabhus, Pachkalshis and Kolis. According to their own accounts a considerable number of the Sonars, who claim to be Daivadnya Brahmans, settled in Thana on the Portuguese conquest of Goa in 1510. And among some Bhandaris and Agris the remembrance of a hurried flight from the south and some traces of Lingayat customs remain.

Of Maratha power the chief relics are priestly Brahmans of the Konkanasth and Deshasth classes; the Pandharpeshas, literally village people, a privileged class of land-holding Brahmans and Prabhus; several bodies of Marathas, such as the Raos of Murbad who seem to have come into the district as fort-guards and who hold aloof from the local Talheris; some villages of Ratnagiri Kunbis in the south of the district, and a large general population, who, in some cases apparently with little reason, style themselves Marathas. Most of the Mhars are said to have been brought by the Marathas from the Deccan to help in collecting the revenue. Besides these results of Maratha ascendancy the surnames of many of the humbler classes show traces of a strain of the higher Maratha blood. About the middle of the eighteenth century (1760-1766) a considerable number of Cambay Vanis, chiefly of the Lad sub-division, and with them several Gujarat Brahmans settled in Sopara, Bassein and other coast towns to avoid the exactions of Momin Khan II (1748-1783).

Another foreign element which may date from the days of the pre-historic trade with Africa and which probably continued to receive

additions till the present century, is the African or Sidi element which is so marked in south Kathiawar and north Kanara, the two other chief forest-bearing tracts of the Bombay coast. African slaves were employed by the Portuguese both as soldiers and as farm-servants, by the Musalmans as soldiers and sailors, and probably in later times by the Pandharpeshas or Maratha landlords who obtained the special leave of the *Peshwa* for the employment of slaves. Traces of African blood may be seen among some of the Salsette Christians and Konkani Musalmans, and among Hindus the Kathkaris have a sub-division named Sidi ; some Thakurs have frizzled and curly hair, and Talheri Kunbis are occasionally met whose deep blackness suggests a part African origin.

Under the English there have been additions to almost all classes and from almost every quarter. Brahmans have come from Ratnagiri and the Deccan as priests and Government servants, from Gujarat and Marwar as priests to Gujarat and Marwar traders, and from Upper and Central India as priests, messengers, labourers and servants. Of traders there are Marwar Vanis, a rich and powerful class found in almost every village as shop-keepers and money-lenders ; Lohanas and Bhatias from Cutch and North Gujarat, grain and cloth merchants in most of the leading towns ; and Lingayat Vanis from the south Deccan, who in many parts hold a strong place as village shop-keepers and money-lenders. Of craftsmen and servants, weavers, gold-smiths, black-smiths, barbers, washermen and others have come both from Gujarat and the Deccan. The number of husbandmen seems to have been little increased by outside settlers. But more than one set of labourers have come from Gujarat, Upper India and the Deccan.

Several classes of the people, though they cannot tell when or why they came, are of sufficiently marked appearance, speech and dress, to show that they are comparatively late arrivals. Of these the most noticeable are, from Sindh, Halvais or sweetmeat-sellers ; from Upper India, Kachis or market gardeners, and different classes of Pardeshis chiefly messengers and servants. From Gujarat, almost all of whom dress in Gujarat fashion and speak Gujarati at home, there are of Brahmans, Audichs, Bhatelas, Dashaharas, Jambus, Modhs, Nagars, Saraswats and Tapodhans ; of traders, Bhansalis, Bhatias, Golas, Lohanas and Vanias ; of craftsmen, Kataris or wood-turners, Kumbhars or potters and Lohars or black-smiths ; of husbandmen, Baris, Kamlis and Sorathias ; of shepherds, Bharvads ; of fishers, Kharpatils, Kharvis, Mangelas, Machhis and Mitne-Machhis ; of servants, Nhavis who seldom stay for more than two or three years ; of unsettled tribes, Waghris ; and of depressed classes, Bhangis and Dheds. From the Deccan have come, of Brahmans, Deshasths, Golaks, Kanojas :

Karhadas, some Madhyandins, and Tailangs ; of traders Komtis and Lingayats ; of craftsmen, Kumbhars or potters, Patharvats or stone masons, Salis or weavers, Sangars or blanket-makers, Lohars or black-smiths, and Sonars or gold-smiths ; of husbandmen, Kunbis and Marathas known in the Konkan as Ghatīs, or highlanders, who are labourers and porters ; of servants, Nhavis or barbers and Parits or washermen ; and of unsettled tribes, Buruds or bamboo workers and Vadars or earth-diggers. From Ratnagiri and Kolaba have come, of Brahmans, Devrukhas, Javals, Kirvants, Sarasvats and Shenvis ; of husbandmen, Hetkaris ; of servants, as constables and messengers, Marathas and Kunbis, and of craftsmen, Chambhars from Chaul and Dabhol. Among Musalmans several classes show their foreign origin and recent arrival, Bohora and Meman traders from Gujarat through Bombay, and Momin and Benares weavers from Upper India. There has also been an increase in the number of Gujarat Parsi liquor-contractors and Government servants, who are found all over the district, and of traders and tavern-keepers who are settled along the railway lines and near Bombay.

These additions to the Thane population may roughly be said to have divided the district into four sections ; the rugged north-east where the early tribes remain almost unmixed ; the coast whose people have a strong element from beyond the sea, chiefly from Gujarat and Kathiawar ; the great central Vaitarna valley the headquarters of the Talheri tribe whose surnames show an early Rajput or foreign element ; and in the south, along the valley of the Ulhas where the leading tribes are, or at least call themselves, Marathas.

RELIGION

A remarkable trait in the character of the Thane people is the very deep and almost universal reverence that is paid to local or un-Brahmanic spirits or deities, as the proverb says, "The spirits of the Konkan are very fierce." These *devs* of whom Cheda, Chita, Hirva and Vaghya are the chief are not only the ordinary objects of worship of the earlier tribes and of the Kunbis, but, in spite of Brahman priests, they are feared and worshipped by almost all Hindus. Nor is the belief in their power and the desire to disarm their ill-will confined to Hindus. Almost all classes, Parsis, Jews, Musalmans and Christians, in spite of the displeasure of their priests, persist in fearing and making offerings to these local *devs*. Their power may perhaps be explained partly by the very strong local or early element in the people, and partly by the prevalence of cramps, agues, and other muscular and nervous seizures that are believed to be caused by spirit possession.

Except the Kathkaris, who are said to look on Chita as their patron and friend, almost all classes regard these spirits evil and unfriendly, and make them offerings solely with the view of turning aside their ill-will.

Of the religions which have been introduced from outside, the earliest traces of which remain is the religion of the Brahmans, with its very ancient (B. C. 1400) holy places on the Vaitarna and in and near Sopara and Bassein. The Kanheri Kondivti and Magathana caves show that, from the first century before to the eighth century after Christ, Salsette was a great Buddhist centre, and the remains at Lonad in Bhiwandi, at Karanja and Ambivli near Karjat, and at Kondane at the foot of the Bhore pass, show that during most of that time Buddhist monasteries commanded the main lines of traffic between Thane and the Deccan.

In the sixth century, while Buddhism was still at the height of its power, Christianity of the Nestorian form was so flourishing that Kalyan was the seat of the Christian Bishop from Persia. In the eighth and ninth centuries the Elephanta and Jogeshwari caves and the temple of Ambarnath bear witness to a Brahmanic revival. Then the Parsis seem to have spread their faith, as, according to Friars Jordanus and Oderic, in the beginning of the fourteenth century, most of the people worshipped fire and exposed their dead. At this time a few houses of Nestorian Christians remained, and the Latin friars succeeded in making some converts. Under the Portuguese the people of the coast-tract were made Christians partly by persuasion and partly by force. On the decline of Portuguese power (1740), Brahmanism revived, and except those that are more modern, most of the present Hindu temples date from the eighteenth century. Under the English, except a small mission of the Scotch Free Church to Gholwad near Dahanu, little effort has been made to spread Christianity.

Portuguese Christians, Parsis, Musalmans and Jews or Beni-Israelis have all of late succeeded in introducing in their communities a closer observance of their religious rules and in putting a stop, at least openly, to the nature or spirit worship which was formerly prevalent among their followers. Though there is considerable anxiety for the purer practice of their religion, none of these classes seem of late to have made any effort to make converts to their faith. Two Hindu religious communities Jains from Marwar and Lingayats from the south Deccan, have considerably increased in numbers under the English. But neither of these sects is of local interest. The members of both are strangers, who bring their religion with them and do not attempt to make converts. The decay of their secular power and the unbelief of

some of the younger members of the upper classes, have lessened the spiritual influence of the Brahmans. At the same time, among a large class of Hindus, easy and rapid travelling has fostered the desire to visit the chief shrines of the Brahman faith, and among some of the wilder tribes Brahmans have lately succeeded in raising a respect for their class and a longing for the more important rites and ceremonies of the Brahman ritual.

LANGUAGE

The Arab writers of the tenth and eleventh centuries noticed that the people of the north Konkan spoke a special dialect known as the Ladavi, that is, the dialect of Lar which at the time meant the country between Broach and Chaul. It seems probable that this was Gujarati, the trade language of the coast-towns. It is distinguished from the Kanarese, or Koriya, spoken in Malkhed or Haidarabad then the headquarters of the rulers of the Deccan and Konkan. Though the north Konkan speech has for long been partly Marathi and partly Gujarati, some of the names of tribes, villages, rivers and hills, seem to point to a Dravidian element in the early population.

North of Umbargaon, Gujarati is spoken by all classes. The people understand Marathi and use a good many Marathi words. The language spoken by the people in the areas bordering with Gujarat is Marathi only. The Marathi spoken in these areas differs little from that spoken in the district. However the Parsees and persons of Gujarat origin speak Gujarati though they understand Marathi very well. Inland about Jawhar, Mokhada and Vada, the speech of village headmen and other husbandmen differs little from ordinary Marathi, and among the higher classes it is entirely Marathi. The talk of the hillmen, Kolis and Konkanis, seems much the same as that of Khandesh hillmen, Marathi with a Gujarati element. Except among late-comers from Marwar and Gujarat, the home-speech of almost all Hindus in the centre and south of the district is Marathi, which has been the language of Government for some centuries and the language of the schools for many generations. About 320 years ago (1659) a Jesuit Father, Francisco Vaz de Guimaraco, wrote in the Koli dialect a Christi Puran or Metrical Life of Christ. This dialect which closely represents the present home-speech of the Son Koli and Salsette Christians, differs in some respects from true or Deccan Marathi. These differences arise chiefly from incorrect pronunciation, variations in inflectional forms, and the use of peculiar words. Under the first head come the invariable substitution of an *r* sound in place of the cerebrals *d*, *dh*, and *l*, the promiscuous use of aspirates instead of unaspirates and *vice versa*, the

addition of an *n* sound, and the separation of conjunct consonants. Inflectional terminations differ slightly from those in Deccan Marathi, the crude form of the word being subject to less change. Of the words not in use in the Deccan some are found in the south Konkan dialect, while others are peculiar to the north Konkan. The nasal sound, the distinguishing peculiarity of the south Konkan dialect, is replaced by a lengthened intonation.

The people of the district belong to five main sections, Hindus, Christians, Musalmans, Parsis and Beni-Israels or Jews. For descriptive purposes Hindus may be brought under the fifteen heads of Brahmans, Writers, Traders, Husbandmen, Manufacturers, Craftsmen, Players, Servants, Shepherds, Fishers, Labourers, Early Tribes, Leather Workers, Depressed Classes and Devotees.

HINDUS

Brahmans: Brahmans, according to the 1872 census, included thirty classes with a total strength of 21,317 souls (males 11,547, females 9,770) or 2.78 per cent of the Hindu population. Of these, 669 (males 323, females 346) were Apastamba Hiranya-Keshis; 561 (males 310, females 251) Audichs; 221 (males 123, females 98) Bhatelas; 8,722 (males 4,589, females 4,133) Chitpavans; 4 (males 3, female 1) Dashahars; 1,006 (males 588, females 418) Deshasths; 899 (males 461, females 438) Devrukhas; 210 (males 152, females 58) Gaud Bengalis; 1,013 (males 522, females 491) Golaks; 248 (males 177, females 71) Gujaratis; 335 (males 193, females 142) Jambus; 13 (males 13, females 0) Javals; 27 (males 19, females 8) Kanadas; 34 (males 19, females 15) Kangos; 117 (males 111, females 6) Kanojas; 585 (males 316, females 269) Karhadas; 46 (males 18, females 28) Kramvants; 15 (males 14, female 1) Madrasis; 47 (males 34, females 13) Marvadis; 140 (males 83, females 57) Modhs; 32 (males 20, females 12) Nagars; 2,311 (males 1,233, females 1,078) Palshes; 2,563 (males 1,323, females 1,240) Samvedis; 21 (males 15, females 6) Sarasvats; 2 (both males) Sarvariya; 629 (males 317, females 312) Shenvis; 62 (males 58, females 4) Tailangs; 80 (males 46, females 34) Tapodhans; 357 (males 207, females 150) Yajurvedi Madhyandins; and 348 (males 249, females 99) were brought under the head of other Brahmans.

Chitpavans: Chitpavans, also known as Konkanasthas, were returned as numbering 8,722 in 1872 and as found in most parts of the district. They are settlers from Ratnagiri, and a large portion of the clerks in Government offices still have their homes in Kolaba or in the south Konkan. The name is said to mean pure from the pyre, *chita*, in reference to the story that they are descended from the ship-wrecked

corpses of foreigners whom Parashuram restored to life, purified and made Brahmans. But the word probably comes from Chitapolan the old name for the Ratnagiri town of Chiplun. The men are of about average size and well-made, fair sometimes with grey eyes, and with regular intelligent features; the women, though somewhat small and weak-eyed, are refined and graceful. They are clean, neat, thrifty, shrewd and orderly, and earn their living by begging, writing, tilling and trading. Such as have means keep the sixteen observances, *sanskars* and all perform ceremonies at investiture, marriage and death. In religion they are Smarts, that is, followers of Shankaracharya. They worship Shiv, Vishnu and other gods, and observe the regular fasts and feasts. Their priests belong to their own caste. They have no head-man. They form part of the Brahman community which includes Chitpavans, Karhadas, Deshasths and Devrukhas. Petty disputes are settled by the adult male members of these sub-divisions who live in the neighbourhood, and large questions are referred to Shankaracharya.

Deshasths : Deshasths, or Desh, that is Deccan Brahmans, were returned as numbering 1,006 in 1872 and as found over the whole district, especially in Panvel, Bassein, Murbad, Karjat and Salsette. They have no sub-divisions. They are generally darker and coarser than Chitpavans, but speak a purer Marathi. They are priests, husbandmen, traders and Government servants. They are generally Rigvedis, belonging to the Smart, Bhagvat and Vaishnav sects. They do not differ from Chitpavans in their religious practices, and have no peculiar customs. Alongwith Chitpavans, Karhadas and Devrukhas, they form the local community of Brahmans.

Devrukhas : Devrukhas, people of Devrukh in Ratnagiri, were returned as numbering 899 in 1872 and as found over the whole district except in Murbad. Both men and women are generally strong and healthy and somewhat dark. They are Smarts in religion, and have no peculiar religious or social customs.

Golaks : Golaks were returned as numbering 1,013 souls in 1872 and as found over the whole district except in Bassein and Dahanu. They are divided into Kunds and Rands. Both are known as Gomukh or cow-mouth, Brahmans. They do not differ from Deshasths in appearance or language. They are generally money-lenders and money-changers, grocers, astrologers and beggars. Some of them act as priests to men of their own caste and to Kunbis, Kolis, Varlis, Thakurs and Agris. Their dress is the same as that of other Maratha Brahmans. They worship Shiv, Ganpati and Bhavani, but their favourite god is Vithoba. They keep images of Khandoba and Devi in their houses. Their priests are either men of their own class, or Chitpavans. Social disputes are

settled by the majority of the votes of the men of the caste, and, if the caste orders are not obeyed, the offender is turned out.

Kangos : Kango Brahmans were returned as numbering thirty-four in 1872 and as found only in Dahanu.

Karhadas : Karhadas, from Karad near the meeting of the Krishna and Koyna about 33 miles south of Satara, were returned as numbering 585 souls in 1872 and as found over the whole district except in Vada and Murbad. They have no sub-divisions. They marry among themselves and occasionally with Deshasths and Konkanasths. Though a few are fair and handsome, as a class they are darker, less well-featured, and sturdier than the Konkanasths. They are Rigvedis and have ten family-stocks or *gotras*. Most of them are Smarts, holding that God and the soul are one, and paying equal honour to Shiv, Vishnu and other gods. Their family-goddesses are Mahalakshmi, Durga, Mhalsa and Matrika. They are one of the four classes who form the local Brahman community, and settle social disputes at a meeting of the men of all four classes.

Palashes : Palashes, or as they call themselves Vajsaneyi Brahmans, probably get their name of Palshe from Palsavli, a village in Kalyan which, according to the Bimbakhyan, Bimb presented to his family-priest who belonged to this class. They were returned as numbering 2,311 souls in 1872 and as found in Panvel, Bassein, Mahim, Dahanu, Bhiwandi, Salsette and Kalyan. They were the priests of the Prabhus and are generally believed to have come in 1297 from Mungi Paithan on the Godavari with Bimb, who founded the Mahim dynasty. They are generally fair, stoutly made and middle-sized. They belong to the Vajsaneyi Madhyandin branch of the Yajurved, and the founder of their sect is said to be the Rishi Yadnavalkya. Their family-priests belong to their own class. They worship all Hindu gods and observe the ordinary fasts. There has been no recent change in their beliefs or practices. They have no head-man and settle their disputes at meetings of the men of the caste

Samvedis : Samvedis were returned as numbering 2,563 in 1872 and as found only in Bassein and Mahim. They are strong, tall and fair, with regular features, and their women and children are fair and handsome. They are clean, neat, sober, thrifty and orderly. They worship the usual Hindu gods. They have no head-men and settle social disputes in accordance with the decision of the majority of the men of the caste. The offending party is either fined or asked to beg pardon. If he is fined, the amount is spent in feeding Brahmans.

Shenvis : Shenvis, who call themselves Sarasvats, were returned numbering 629 souls in 1872 and as living in Panvel, Dahanu, Shahapur,

Karjat, Bhiwandi, Salsette, Kalyan and Bassein. They are writers, traders and land-holders, employing servants to cultivate for them.

Writers : Writers included two classes with a strength of 5,213 souls (males 2,736, females 2,477) or 0·68 per cent of the Hindu population. Of these, 5,128 (males 2,696, females 2,432) were Kayasth Prabhus, and 85 (males 40, females 45) Patane Prabhus.

Kayasth Prabhus : Kayasth Prabhus were returned as numbering 5,128 in 1872 and as living in all parts of the district except in Mahim. They claim descent from Chandrasen, a Kshatriya king of Oudh.

Their commonest surnames are Adhikari, Chitre, Donde, Gupte, Jayavant, Pradhan, Raje, Randive, Tamhane and Vaidya. They have also family-names, taken from official titles, such as Chitnis, Parasnis, Potnis, Tipnis, Deshmukh, Deshpande, Daftardar, Karkhanis, Pharskhane, Divan and Kulkarni. As a class the men are middle-sized and slightly built, fair with regular features and handsome intelligent faces. Their women are refined and graceful. The young men generally speak correct and well-pronounced Marathi. But among some of the elders there are several peculiarities, chiefly the use of *v* for *i* and use of *i* for *v*, as Virada for Irada, Inayak for Vinayak, and Ishveshvar for Vishveshvar.

They are generally Bhagvats, but they worship goddesses more than gods. They have images of their gods in their houses. They perform three of the six Vedic duties or *karma*, studying the Vedas *adhyapan*, sacrificing *Yajna*, and giving alms *dan*. Their priests, who are Brahmans, are treated with respect. They keep all Hindu holidays and fasts. Social disputes are settled by a meeting of the men of the caste, and the decision of the majority is respected. Those who disobey are cut off from marriage, dinner and other caste ceremonies. Caste discipline shows no sign of decline.

Traders : Traders included nine classes with a strength of 10,552 souls (males 5,800, females 4,752) or 1·37 per cent of the Hindu population in 1872. Of these, 7 (males 6, females 1) were Ataris : 449 (males 235, females 214) Bhansalis ; 86 (males 61, females 25) Bhatias ; 219 (males 119, females 100) Golas ; 10 (males 6, females 4) Komtis ; 558 (males 316, females 242) Lingayats ; 480 (males 243, females 237) Lohanas ; 19 (males 15, females 4) Tambolis ; and 8,724 (males 4,799, females 3,925) Vanis.

Lingayats : Lingayats, wearers of the movable *ling*, were returned as numbering 558 in 1872 and as living in all parts of the district except in Mahim and Vada. They are tall, strongly made, and somewhat dark. The men generally shave the whole head and the face except the moustache. They speak Kanarese among themselves and Marathi with others. They are clean, orderly, sober, thrifty and hospitable. All

are Shaivs and have no images in their houses. Their priests are Jangams. They observe Hindu holidays and fast on Mondays and on the twelfth day of each fortnight. Neither a death nor a woman's monthly courses are held to cause ceremonial uncleanness. A true believer, they say, cannot be impure. They are bound together as one body, having both a lay head-man, *sheth*, and a religious leader, *mathpati*. If a member of the community is accused of drinking liquor or chewing betel-nut, the question is discussed at a meeting of the men of the caste.

Vanis: Vanis are of three main classes, Gujarati, Marvadi and Marathi. Gujarati Vanis have five sub-divisions, Lad, Porvad, Kapol, Modh and Shrimali, and are found throughout the district. Of about 120 families of Lad Vanis about forty were in Thane, thirty-five in Supara, and the rest in Bassein, Agashi, Nala, Papdi and Dahanu in 1872. Masudi's statement, that when he wrote (915) the Lar language was spoken in the coast-towns as far south as Chaul, makes it probable that from very early times Lad Vanis had settled along the Thane coast for purposes of trade. But it would seem that most of the present families are late settlers, who about the middle of the eighteenth century fled from Cambay to escape the tyranny of Momin Khan II. They speak Gujarati among themselves and Marathi with others. They are hard-working, sober, frugal and orderly, and live as shop-keepers, money-lenders, superior land-holders, merchants and petty dealers. They are Vaishnavs of the Vallabhacharya sect, though in consequence of their close connection with Maratha Brahmans they observe Shaiv fasts and feasts. They go on pilgrimages to Dakor, Dwarka, Nasik and Pandharpur, and have images of their gods in their houses. Their caste priests are Khedaval Brahmans who, coming originally with them from Cambay, have certain claims on them, and who go from Bombay to their patrons on marriage and death occasions. The family-priests are generally Tolakia Brahmans. They have a nominal head-man, and they settle their social disputes at a meeting of the men of the caste.

Marwar Vanis: Marwadis, or Marwar Vanis, are returned as found over the whole district except in Dahanu, Murbad and Vada. They are of two main divisions, Porvad and Osval. They are rather tall and slightly made, but hardy and vigorous, rather dark, generally with long faces, sharp eyes and sunken cheeks. They shave the head, leaving three patches of hair, a top-knot, and a lock over each ear, a peculiarity that has gained for them the nickname of *tin-shende* or the triple top-knot men. All wear the moustache, some wear whiskers and others the beard. They speak Marvadi among themselves and incorrect Marathi to others.

They are Jains by religion, treat their priests, *yatis*, with respect, are careful to keep their holidays especially the weekly fasts in Bhadrpad (August-September), never eat after sun-set, are tender of life, and regular in worshipping their saints both in their houses and temples. They have no head-man and settle social disputes at meetings of the men of the caste.

Husbandmen: Husbandmen included fifteen classes with a total strength of 3,38,732 (males 1,74,965, females 1,63,767) or 44.22 per cent of the Hindu population in 1872. Of these, 1,19,103 (males 60,442, females 58,661) were Agris; 2,458 (males 1,054, females 1,404) Baris; 787 (males 399, females 388) Charans; 866 (males 362, females 504) Chokhars; 92 (males 49, females 43) Hetkaris; 147 (males 73, females 74) Kachis; 851 (males 502, females 349) Kamathis; 728 (males 354, females 374) Kamlis; 2,507 (males 1,333, females 1,174) Karadis; 8,359 (males 4,320, females 4,039) Kharpatils; 1,83,144 (males 90,010, females 87,134) Kunbis; 15,367 (males 7,828, females 7,539) Pachkalshis; 14 (males 10, females 4) Pahadis; 686 (males 334, females 352) Sorathis; and 3,623 (males 1,895, females 1,728) Vanjaris.

Agris: Agris, from *agar* a salt-pan, were returned as numbering 1,19,103 in 1872 and as found over the whole district. Both Mackintosh and Wilson rank them as Kolis.¹ Their headquarters are in the south-west, but they are common as far north as the middle of Mahim, Bhiwandi, Shahapur and Vada.

They are of three divisions who neither eat together nor inter-marry, Sudagris, Desagris and Urap Agris. The Sudagris include three subdivisions, Mithagris or salt-makers, Jacagris or toddy-drawers chiefly in Bhiwandi, and Dholagris or drummers. These eat together and inter-marry, and claim a strain of same foreign blood as the Prabhus and Pachkalshis. Their chief surnames are Bhoir, Chandheri, Chavhan, Gharat, Gulvi, Jadav, Kim, Mali, Mandre, Mhatre, Mukul, Navruye, Naik, Povar, Shelar, Shelka, Vaze and Yadav. Agris are small, active and dark, and speak a rough Marathi. They respect most Hindu gods, but their favourite objects of worship are Cheda and other local spirits or *devs*.

Desagris, according to their own story the thrum, or *dashi* wearing Agris, but perhaps more probably the half caste, *das* or ten being half of the score or full number, are found chiefly along the tidal course of the Tansa and Vaitarna rivers east of the railway line.² They are

¹ Trans. Bom. Geog. Soc. I. 194. The Mithagris say the true form of the word is *Agle* or early.

² The villages are Bahadoli, Sakre, Padgaon, Kanivde, Navsai, Chandip Kopar, Ghatimb, Sofala, Makne, Nagave, Agarvadi, Tembhode Umroli; Birvadi; and Padghe. The Kelve-Mahim villages are Sonave, Purgav, Sankre, Baroli, Ghativ, Supala, Makna, Nagava Agarvadi, Tembora, Maroli, Bilvadi; Parga; and Navli. And the Bassein villages are Kofar, Chandve, Navsai and Khanivde.

soft-featured and round-faced with bright full eyes and fair skins, and as children are very pretty. Almost all are husbandmen, and in dress, speech and customs differ little from Sudagris.

Urap Agris or Varap Agris found in several villages in Salsette and Bassein¹ are said to be Christian Agris, who reverted to Hinduism some in 1820 and others in 1828. Their manners and customs are the same as those of other Agris, and they worship Hindu gods. The only sign that they were once Christians is in their surnames such as Gomas, Soz, Fernan, Frutad and Minez.

Baris : Baris, returned as numbering 2,458 in 1872 and as found in Bassein, Mahim and Dahanu, are dark and stoutly made, wear the top-knot and moustache, and shave the head once a month. They are said to have come from Gujarat and though some speak and dress like Marathas the women of others keep to their speech and dress. They are clean, hard-working and orderly, and work as husbandmen, cartmen and labourers. They are Bhagvats, worshipping all Hindu gods but especially Vishnu, keeping images in their houses and holding their priests, who are Chitpavans, Gujaratis, Palshes and Golaks, in high respect. They keep all Hindu fasts and feasts, and have not of late changed their religious beliefs. They have a caste organisation and leave the settlement of social disputes to some of their head-men. Caste authority has not grown weaker.

Charans : Charans, though classed with Vanjaris, are apparently a distinct people. They were returned as numbering 787 in 1872 and as found in Vada, Murbad, Karjat, Bhiwandi, Salsette and Panvel. Like the Vanjaris they are divided into Charans proper, Mathuras, Rajputs, Lavanas and Gavars, who neither eat together nor inter-marry. The first two wear the sacred thread. Except the Charans proper who have their own priests called Charan Brahmans, the other divisions require the help of a Brahman at their marriages. The Charans came about twenty years ago from Malegaon in Nasik, and settled in Mokhada.

Chokhars : Chokhars, returned as numbering 866 in 1872 and as found only in Dahanu, are a Marathi-speaking people. They are one of the classes who claim to have come into the Konkan with Bimb. They have no sub-divisions and their surnames are Kor, Rat, Dalvi, Sani Suri and Des. They are clean, hard-working and fond of strong drink, and earn their living as husbandmen and labourers. They worship all Hindu gods and Maruti in particular, and keep images in their houses. They employ Brahmans as their family-priests holding them in respect

¹ The Salsette villages are Balkham, Ralodi, Turbhe, Kavesar, Vadavali, Uthalsar, Mulund, Kopri, Pavai, Kalva, Sanghar, Ovale, Gavhan and Bhandup. The Bassein villages are Umelmal, Manikpur, Agashi, Mukam, Padrichivadi, Jot, Virar; Kolowda, Navapur, Achole and Juchandra.

and keeping all Hindu fasts and feasts. They have a head-man, *patil*, who settles social disputes. They are a poor class and do not send their children to school.

Kamathis : Kamathis were returned as numbering 851 in 1872 and as found in Panvel, Salsette, Kalyan, Shahapur and Karjat. They have come from the Nizam's dominions since the beginning of British rule. Under the name Kamathi people of many classes are included.

They are tall, dark and robust, and their young women are stout and good-looking. They speak Telugu in their homes and Marathi and Hindustani abroad, and write in Balbodh. They are clean, active, hard-working and frugal.

In religion Kamathis are either Smarts or Bhagvats. They make the ordinary sect-marks, the Smarts using ashes and drawing a sandal-mark across the brow, and the Bhagvats drawing a black and generally a long yellow line with a white sandal-mark on either side called *trinam* or simply *nam*. They worship the ordinary Hindu gods and visit Pandharpur, Jejuri, Nasik and Benares. Besides these they have some gods peculiar to Telangan, Rajeshdev, whose chief shrine is at Yemaldu, and Narshiram and Narsinhadu whose shrines are at Dharampuri. They also worship the small-pox and cholera goddesses, Pochema and Marma, as well as Khandoba, Malhari and Maishma. The Bhagvats call on Vishnu under the names of Narayan, Govind and Shriman, and the Smarts blow the conch-shell, *shankha*. They keep the ordinary Hindu holidays. Among Kamathis, Komtis, goldsmiths and carpenters wear the sacred thread. Their priests who are Telugu Brahmins are not treated with much respect. There has been no recent change in their beliefs or practices. Each caste has from two to six head-men, *mukadams*, chosen by the caste. If one dies his son or brother takes his place. Almost all classes are well-to-do. The feeling of fellowship is strong among them, and they are kindly, friendly, and helpful to each other. They live in numbers in one place, and do not let outsiders know that there is any difference of caste among them.

Kamlis : Kamlis were returned as numbering 728 in 1872 and as found only in Dahanu and Vada. They say they came from Kathiawar more than five hundred years ago, and that they were formerly known as Kamb Rajputs. They are said to have taken to animal food since they came to Thane. They speak an indistinct Gujarati. They are fairly clean, hard-working, honest, mild-tempered, hospitable and sober. They are husbandmen and palm-juice drawers and sellers. Their chief gods are Maruti, Ganpati and Mahadev. Their chief holidays are Diwali (October-November), Shimga (February-March) and Makar Sankrant (14th January), and their minor holidays are Dasara (September-October), Ganesh Chaturthi (August-September) and

Coconut day (August-September). They have a head-man called *patil*, but settle caste-disputes according to the opinion of the majority of the men of the caste. Their boys go to school, but they are in poor circumstances.

Karadis : Karadis were returned as numbering 2,507 in 1872 and as found in Panvel only. Their surnames are Bhoir, Bhagat, Bhigarkar, Mhatre and Raut. They have no sub-divisions and speak incorrect Marathi. They are cultivators and labourers, and in food and dress resemble the Marathas.

Kharpatils : Kharpatils were returned as numbering 8,359 in 1872. They are found in Mahim, Bassein and Dahanu. In some parts the name seems to be borne by Agri families who have been in charge of salt lands. In other places they are said to form a separate caste known as Kharvis as well as Kharpatels, and apparently of Gujarat origin. The latter generally live in coast villages and speak incorrect Marathi. They worship Gaydevi, Cheda, Munja and Bhavani and employ Chitpavan, Deshasth or Palshe Brahmans as priests. Their holidays are Shimga (February-March), Diwali (October-November), and the anniversary of their deceased relations. They have no other fasts or feasts, and they are less superstitious than most Hindus. They ask one or two respectable caste-fellows, or the village *patil*, to decide their caste-disputes.

Kunbis : Kunbis, or Kulambis, were returned as numbering 1,83,144 souls in 1872 and as found over the whole district. The classes commonly spoken of as Kunbis, in the general sense of husbandmen, may be brought under three groups, Talheri or Konkan Kunbis ; Maratha or Deccan Kunbis, most of whom are connected with the Talheris, but among whom some small divisions such as the Raos of Murbad and the Karadi Kadams of Panvel are nearly separate ; and a third group probably of part Gujarat descent which includes Malis, Chavkalshis, and Somvanshi Kshatris, and may be roughly brought under the general term Pachkalshis. Of other cultivating classes the Agris are sometimes spoken of as Kunbis, but they are generally and more correctly classed with Kolis and Mhars, though they till, are always known by the name of their tribe not of their calling ; and Sorathias and Nakri Kunbis are also usually spoken of by the name of their class.

Talheri¹ Kulambis, or Kunbis, had, according to the 1872 census, a strength of about 80,000, of whom 33,000 were in Shahapur, 16,450 in Murbad, 13,250 in Bhiwandi, 8,370 in Vada, 2,300 in Mahim, 2,130 in Kalyan, 1,850 in Karjat, 1,050 in Bassein, 920 in Dahanu,

¹ Talheri seems to mean a lowlander, perhaps as opposed to Varali an uplander and Malhari a highlander, Mr. E. J. Ebdon, C.S.

and 235 in Panvel. That is they are found almost entirely in the centre of the district along the basin of the Vaitarna between the Thal pass and the coast. Talheris are composed of two main elements, a local apparently little different from the Son Koli, and a foreign. The early or local element is much stronger than either in Gujarat or in Deccan Kunbis. The foreign element belongs to two periods, before and after the times of the Musalmans and Portuguese. Traces of the Rajput or early foreign element survive in such Talheri surnames as More or Maurya, Salunkhe, Jadhav, Yadav, Povar, Chohan and Shelar. And the later or Maratha element in such surnames as Bhosle, Kadam, Shirke, and Samble or Sabarya. The difference between Maratha and Talheri Kunbis seems to be that while the foreign element in the Talheris is chiefly early, the Marathas claim to represent the conquerors, who, during the seventeenth and eighteenth centuries, passing north from Satara and Ratnagiri, settled across the whole south of the District. Though these different elements may be traced in more or less strength, no certain line can be drawn between Talheri and Maratha Kunbis. They eat together and to some extent inter-marry, and do not differ in appearance, religion or customs. In former times (1818) many so-called Marathas were Konkan Kunbis who had left their fields and taken to a military life. And now a Talheri who enlists, joins the police or gets a place under Government, calls himself a Maratha and by degrees forms marriage connections with Maratha families of a better social position than his own. On the other hand, an unlucky Maratha will fall to the rank of a Talheri and may be forced to marry his daughters into Talheri houses.

Talheri Kunbis are small, slightly and neatly made, dark, sometimes black. The face is round, the fore-head short and retiring, the cheek-bones rather high, the eyes full and black, the nose straight and prominent, and the teeth not remarkably good.

Kunbis are mostly Bhagvats, holding Vishnu as their chief god but reverencing other gods as well. They are careful to worship local spirits or demon gods, and are most anxious to avoid or to disarm their displeasure. They are staunch believers in witchcraft and in the evil eye. They are believed mostly to die of spirit possession. Few visit temples, but some make pilgrimages to the god Vithoba at Pandharpur. They greatly respect their Brahman priests who are generally Konkanasths, Deshasths, Karhadas or Palshes. When the Brahman visits their house, the Kunbis bow before him and he blesses them wishing them good luck, *kalyan*. Kunbis keep all the fasts and feasts observed by other Maratha Hindus. Their chief holidays are Holi (February-March), Pola (July-August), Dasara (September-October) and Diwali (October-November) ; the women have two other special days,

Nagpanchami (August-September) and Gauri (September-October). There has been no recent change in their beliefs or practices. In the case of any social dispute they meet at a caste-fellow's house where funeral ceremonies are taking place, and there settle the matter. They have no head-man and an ex-communicated person is allowed into caste after a Brahman has given him holy water, *tirtha*. Caste authority has not of late grown weaker.

Marathas : Marathas were returned as numbering nearly 1,00,000 in 1872 of whom 27,900 were in Karjat, 18,000 in Kalyan, 13,300 in Salsette, 12,000 in Panvel, 12,000 in Murbad, 5,000 in Shahapur, nearly 3,000 in Bassein, 1,350 in Mahim and about 700 in Dahanu. That is they are found almost entirely in the south along the Ulhas valley between the Bor pass and the coast, the part of the district which had been almost entirely under Maratha management during the century and a half before its conquest by the British. Among the Marathas some clans such as the Raos of Murbad and the Karhadi Kadams of Panvel seem to have come from the Deccan in a body as settlers or as the guards of hill-forts. They hold aloof from the ordinary Maratha Kunbi and are larger, fairer, and more refined. Among the ordinary Kunbi Marathas some show signs of Deccan blood. But the bulk can hardly be known from Talheris and are generally grouped with them under the term Kunbi. Their appearance, food, dress, religion and customs are the same, and like the Talheris, all except a few soldiers, constables and messengers, are husbandmen and labourers. They eat together, and they have many common surnames both of Rajput and Maratha clans. Though as a rule they do not inter-marry, the reason is because of the Marathas' higher social position, not from any difficulty on the score of caste. A Maratha Kunbi will for a money payment readily marry his son into a Talheri Kunbi family and the poorer Maratha Kunbis occasionally give their daughters to well-to-do Talheris. Probably because the Marathas were the last Hindu rulers, there is a strong tendency among middle class Hindus to claim a Maratha origin. Besides the Maratha Kunbis who differ little if at all from the Talheri Kunbis, Pachkalshis who have apparently no connection with the Deccan, style themselves Marathas and probably form a large share of the 13,300 inhabitants of Salsette, who at the 1872 census returned themselves as Marathas.

Pachkalshis : Pachkalshis were returned as numbering 15,367 in 1872 and as found in small numbers over most of the district and in strength along the coast. Besides by the name Pachkalshis, they are known as Sutars, Malis, Vadvals, Chaukalshis, Somvanshi Kshatris, and Pathares, all of whom except the Chaukalshis eat together and inter-marry. The name Pachkalshi is said to come from their using

in their marriage ceremonies five earthen pots, *kalash*. They say that they are the descendants of the sun god, Surya-Narayan, and that they came with Bhimdev from Paithan on the Godavari at the close of the thirteenth century. But they are all of the same stock as the Pathare Prabhus, and for the reasons mentioned in the Prabhu account seem to have come from Gujarat and not from the Deccan. Their surnames are Raut, Vartak and Chaudhari. They speak incorrect Marathi. They worship the ordinary Hindu gods, and generally employ Palshe Brahmans as priest. Some Pachkalshis always wear the sacred thread and among them widow marriage is forbidden. The Chaukalshis wear the sacred thread during the marriage ceremony but at no other time. They do not shave the widow's head and allow widow marriage. They have images of Cheda and other demon-gods in their houses placed alongwith brass and stone images of Ganpati, Shiv and Krishna. They keep the usual Hindu fasts and feasts. They form a separate community, and occasionally hold caste-meetings.

Vanjaris : Vanjaris were returned as numbering 3,623 in 1872. The accounts of them are confusing probably because they belong to two distinct groups, those who have settled as husbandmen and those who are still wandering carriers. In appearance the two groups seem to differ but little, the men of both being described as tall and good-looking, and the women well-built but singularly harsh-featured. The settled or tilling Vanjari seem to belong to two separate tribes, one found in Mahim who have come from Malwa through the Deccan. The Mahim Vanjaris, who are also called God-Malvis, are found in Masvan, Paruthembi, Kurgaon, Morkuran and Gundali. Their surnames are Piple, Raote, Shende, Sable, Bharatdar, Lanje, Vade and Mathure. The Mokhada Vanjaris belong to the Lad tribe. They speak Marathi, but their home-talk is a mixture of Marathi and Gujarati. They are nominally worshippers of Ram, Mahadev, Vishnu and Krishna, but their chief objects of worship are Chedya, Narshya and other spirits. They also worship the village god Vaghya. They greatly respect their priests and keep all Hindu fasts and feasts. There has been no recent change in their religious belief. Social disputes are settled at a meeting of the men of the caste, whose authority shows no signs of declining. They own fields, houses and cattle, do not send their boys to school, and are in easy circumstances.

Manufacturers : Manufacturers included seven classes with a strength of 1,228 (males 679, females 549) or 0.16 per cent of the Hindu population in 1872. Of these, 41 (males 38, females 3) were Khattris, weavers ; 49 (males 22, females 27) Koshtis, weavers ; 12 (males 5, females 7) Rangaris, dyers ; 22 (males 10, females 12) Rauls,

tape-makers ; 29 (males 19, females 10) Sangars, blanket-makers ; 59 (males 56, females 3) Salis, weavers ; and 1,016 (males 529, females 487) Telis, oil-pressers.

Telis : Telis, or oil-men, were returned as numbering 1,016 souls in 1872 and as found over the whole district except in Bassein, Mahim and Dahanu. Their chief god is Mahadev and their priests are Chitpavan and Deshasth Brahmans. They have no head-man. Caste-disputes are settled by the majority of votes at a meeting of the men of the caste.

Craftsmen : Artisans included twelve classes with a strength of 18,546 (males 9,844, females 8,702) or 2.42 per cent of the Hindu population in 1872. Of these, 488 (males 262, females 226) were Beldars, masons ; 96 (males 49, females 47) Gaundis, masons ; 17 (males 9, females 8) Jingars, saddlers ; 1,271 (males 708, females 563) Kasars, bangle-sellers ; 56 (males 33, females 23) Kataris, turners ; 4,276 (males 2,243, females 2,033) Kumbhars, potters ; 3,226 (males 1,656, females 1,570) Lohars, black-smiths ; 58 (males 42, females 16) Panchals ; 193 (males 109, females 84) Patharvats, stone-masons ; 2,202 (males 1,179, females 1,023) Shimpis, tailors ; 6,176 (males 3,287, females 2889) Sonars, gold-smiths and 487 (males 267, females 220) Tambats, copper-smiths.

Kasars : Kasars were returned as numbering 1,271 souls in 1872 and as found over the whole district. They are clean and neat and dress like Brahmans. They speak Marathi and deal in glass and wax bangles. Their chief god is Khandoba.

Kumbhars : Kumbhars, or potters, were returned as numbering 4,276 souls in 1872 and as found over the whole district. They are divided into Gujaratis and Marathis. They are hard-working, sober and good-tempered. They worship the ordinary Hindu gods and keep images of Khandoba, Bahiri and Bhavani in their houses. Their priests are Maratha Brahmans whose services are required at marriages and deaths. They keep the same fasts and feasts as other Hindus. They have an hereditary head-man who settles social disputes at meetings of the men of the caste. The offender is fined, and if he refuses to pay the fine, is put out of caste.

Lohars : Lohars, or black-smiths, were returned as numbering 3,226 souls in 1872 and as found over the whole district. They are divided into Gujaratis and Marathis. They worship the ordinary Hindu gods but have no images in their houses. On great occasions they employ Brahmans to officiate in their houses, the Gujaratis calling Gujarat and the Marathis calling Maratha Brahmans. Social disputes are settled by the majority of votes at a meeting of the men of the caste. Their craft is falling on account of the machine made goods.

Shimpis : Shimpis, or tailors, were returned as numbering 2,202 in 1872 and as found over the whole district. They are divided into Namdevs¹ and Konkans, who eat together but do not inter-marry. Both are dark and speak Marathi with a somewhat peculiar accent. Clean, orderly, sober, unthriftly and hospitable, their hereditary craft of trading in cloth and sewing is followed by the members of both subdivisions. Their chief household gods are Khandoba and Bahiri.

Sonars : Sonars, or gold-smiths, were returned as numbering 6,176 in 1872 and as found in all large villages. Their surnames are Pitale, Hate, Murkute and Ghosalkar. Of middle height and rather slenderly built, they are brownish in colour and have round well-featured faces. They speak Marathi. They are clean, persevering and patient. On ordinary occasions they call their own Brahmans who are generally known as Sonar Bhats, but on great occasions, as at marriages, they usually seek the aid of Konkanasth or Deshasth priest. Social disputes are settled by the majority of votes at a meeting of the men of the caste.

Players : Players included four classes with a strength of 764 souls (males 463, females 301) or 0.09 per cent of the Hindu population in 1872. Of the whole number, 163 (males 107, females 56) were Bhats, bards ; 8, (males 6, females 2) Bhorpis, mimics ; 51 (males 36, females 15) Ghadses, singers ; and 542 (males 314, females 228) Guravs, temple servants.

Servants : Servants included three classes with a strength of 5,358 souls (males 2,844, females 2,514) or 0.69 per cent of the Hindu population in 1872. Of these, 861 (males 453, females 408) were Akarmashes ; 3,457 (males 1,857, females 1,600) Nhavis, barbers ; and 1,040 (males 534, females 506) Parits, washermen.

Nhavis : Nhavis, or barbers, were returned as numbering 3,457 in 1872 and as found over the whole district. They belong to two classes, Konkans and Ghatils or high-landers, that is Deccanis, who eat together but do not inter-marry. Both have the same surnames, the commonest being Sant, Tupe and Vyavahare. They are a quiet orderly class, famous for their love of talking. They worship the ordinary Hindu gods and seldom have images in their houses. Their priests are Maratha Brahmans. They keep the ordinary Hindu fasts and feasts and settle their social disputes at meetings of the men of the caste.

Parits : Parits, or washer-men, were returned as numbering 1,040 souls in 1872 and as found over the whole district. They are either

¹ The Namdevs are called from the Saint Namdev who lived about the middle of the thirteenth century.

Konkanis or Decannis, both of whom have the same surnames of which the commonest are Temkar, Chevulkar, Shirgavkar and Pathankar. They resemble Kunbis in appearance and speak Marathi. They are clean, hard-working, orderly and hospitable. They worship the ordinary Hindu gods and keep the usual fasts and feasts. Their household gods are Bahiri, Khandoba, Vagjai and Kalkai, whom they worship occasionally. They have Maratha Brahman priests and settle their disputes at a meeting of the men of the caste.

Shepherds : Shepherds included four classes with a strength of 2,711 souls (males 1,467, females 1,244) or 0.35 per cent of the Hindu population in 1872. Of these, 402 (males 216, females 186) were Bhavads ; 1,089 (males 638, females 451) Dhangars ; 1,157 (males 571, females 586) Gavlis ; and 63 (males 42, females 21) Kanadas.

Dhangars : Dhangars, or shepherds, were returned as numbering 1,089 in 1872 and as found over the whole district except in Dahanu and Vada. They are larger and better looking than any of the other hill-tribes. Their story is that their fore-fathers came from the Deccan and were shepherds, till they found that the sheep did not stand the damp cold of the south-west monsoon. They are divided into Khutekari Dhangars who make blankets, Gavli Dhangars who keep cows and buffaloes and sell them and their milk and butter, and Mendhe Dhangars who are shepherds and goat-herds. Their gods are Khandoba, Tukai, Janai, Vagjai and Mhasoba. They also worship the village gods.

Gavlis : Gavlis, or cow-keepers, were returned as numbering 1,157 in 1872 and as found over the whole district except in Bassein, Mahim, Dahanu and Murbad. They are divided into Dabholis and Chevlis. Among the Dabholis the commonest surnames are Pavar, Bherre, Patkar, Savle, Ghatval, Mahadik, Gayakar, Khedekar, Karanjkar, Kilje, Chogle, Dhage, Darge and Sangle, and among the Chavlis, Vadval, Ghosalkar, Mhaitar, Padge, Barad and Shingrut. They look like Marathas and speak Marathi. They worship all the Hindu gods especially the god Krishna, but they do not hold their priests in much respect. They keep the ordinary Hindu fasts and feasts. There has been no recent change in their beliefs or practices. They have no head-man and settle social disputes at a meeting of the men of the caste. Caste authority has not grown weaker. They are a steady class.

Fishers : Fishers and Sailors included six classes with a strength on 27,093 or 3.53 per cent of the Hindu population in 1872. Of these, 2,087 (males 1,119, females 968) were Bhois, river-fishers ; 280 (males 209, females 71) Kharvis, sailors ; 3,051 (males 1,749, females 1,302) Machhis, sea-fishers ; 10,718 (males 5,396, females 5,322) Mangelas ; 2,957 (males 1,274, females 1,683) Mitne Machhis, and about 8,000 other Kolis.

Bhois : Bhois were returned as numbering 2,087 in 1872 and as found over the whole district except in Mahim, Dahanu and Murbad. They are divided into Khare or salt water, and Gode or fresh water Bhois who neither eat together nor inter-marry. They speak incorrect Marathi, and are hard-working and stingy. They worship the ordinary Hindu gods, but chiefly Khandoba and Bahiri. They have images of their gods in their houses, but worship them on holidays only. Coconut-day (*Naralipornima*) (August-September), *Gauri* (August-September) and *Shimga* (February-March) are their chief holidays. On coconut-day they meet, and going to the shore, worship the sea. On leaving their houses they think it unlucky to meet a Brahman or a cow. They treat their priests who are Brahmans with great respect. Social disputes are settled by the elders of the caste.

Machhis : Machhis were returned as numbering 3,051 in 1872 and as found in Bassein, Panvel, Mahim, Dahanu and Shahapur. They speak Gujarati at home and Marathi out-of-doors, but their pronunciation of neither language is correct. They keep the ordinary Hindu fasts and feasts. Their head-man, or *patil*, settles social disputes. Caste authority has not diminished of late years.

Mangelas : Mangelas were returned as numbering 10,718 in 1872 and as found in Mahim, Dahanu and Salsette. They have no subdivisions, but have such surnames as Nijak, Dhanu, Kinhi, Mare, Somte, Pagdhar, Naik and Chodhre. Though slim, they are strongly made and dark, and do not shave the top of the head. They speak Marathi but indistinctly, and with the use of many Gujarati words. They are hard-working. They are Smarts, and have no images of their gods in their houses. There have been no recent changes in their beliefs. They have a head-man, *patil*, who settles social disputes at caste-meetings.

Son Kolis : Son Kolis, that is perhaps the younger or later-come Kolis¹, with an estimated strength of 8,000 in 1872 are found chiefly along the coast south of the Vaitarna. They are probably a tribe of Kolis who have mixed with foreign settlers from beyond the sea.

They are a short sturdy class with powerful shoulders and arms, many of them with a strong tendency to fatness. They vary much in colour, but on the whole are somewhat fairer than the Kunbis. Some of the men have handsome faces, and many of them, though coarse-featured, have frank and kindly expressions. They speak Marathi, but with many strange words and so curious an accent that what they say to each other is most difficult to make out. They pronounce the *d* as *r*, *l* as *l*, and *n* as *n*. They are hard-working, hospitable and

¹ Other derivations are from *Shon* red or from *Son*, a stranger.

honest, always ready to pay their debts. They worship the ordinary Hindu gods, observe the usual fasts and feasts, and employ Brahmans as their priests. They make pilgrimages to Banares, Nasik, Panchapur and Jejuri. Their family-gods are Khanderao, Bhavani, Bhairav, Babdev, Vir, Kalkai, Cheda and Marubai. The images of these gods and spirits are kept only in the houses of some of the older men of their tribe, where the rest go daily to worship bowing before them and pray for daily bread and raiment. After the prayer the worshipper takes a pinch of turmeric, *bhandar*, or ashes, *vibhut*, rubs it on his brow, and goes home. They have head-men called *patils*, who, along with the men of the caste, settle social disputes. The head of the tribe is known as the Vagh Patil, and lives at Alibag in Kulaba, whence the Thana Son Kolis say they originally came. He had formerly very great power, but his authority has of late declined. The village head-men are known as his *shishyas* or disciples.

Labourers : Labourers and miscellaneous workers included ten classes with a strength of 18,383 souls (males 9,586, females 8,797) or 2.40 per cent of the Hindu population in 1872. Of these, 13,088 (males 6,472, females 6,616) were Bhandaris, palm-juice drawers ; 581 (males 299, females 282) Buruds, Bamboo-workers ; 334 (males 214, females 120) Ghatīs ; 75 (males 35, females 40) Ghisadis, tinkers ; 15 (males 8, females 7) Halvais, sweetmeat-makers ; 1,084 (males 523, females 561) Kalans, toddy-drawers ; 289 (males 161, females 128) Khatiks, butchers ; 4 (males 2, females 2) Lodhis ; 2,200 (males 1,530, females 670) Pardeshis ; and 713 (males 342, females 371) Phudgis.

Bhandaris : Bhandaris, or palm-juice drawers, from the Sanskrit *mandharak*, a distiller, were returned as numbering 13,088 in 1872 and as found over the whole district except in Murbad and Bhiwandi. They are said to have been brought from Goa by the Portuguese. But this is unlikely, and their own story is that they came to the Konkan with Bimb. They seem to be Agris with a larger share of foreign blood. They are divided into Kirtes, Sindes, Gavads and Karpals, of whom the Sindes and Gavads eat together and inter-marry. The Kirtes draw cocoa-palm juice and are considered the highest division, the Gavads who tap brab-palms come next, and the Karpals are the lowest. Karpals were once Christians, and perhaps get their name from *kriyapal* meaning allowed to make use of Hindu rites. Among Bhandaris the commonest surnames are Surve, Jadhav and Kadam. They speak Marathi and are middle-sized, fairer than Kunbis, and good-looking, some of them with very intelligent faces. Many are remarkably well-made and muscular. They worship the ordinary Hindu gods, and, of the local deities, chiefly Cheda to whom they offer goats and fowls. They keep all Hindu fasts, and feasts, fasting especially on the fourth

of *Bhadrapad* (August-September). There have been no recent changes in their beliefs or practices. They have a head-man, called *mukadam*, who settles social disputes. Their craft is declining and few of them send their boys to school.

Kalans : Kalans, or distillers, were returned as numbering 1,084 in 1872 and as found over the whole district except in Bassein, Mahim and Shahapur. They say they take their name from the goddess Kalika who entrusted to them the work of preparing liquor. They are also called Kalals. They are supposed to have come from Upper India through Gujarat, but their home-speech is now Marathi. They are hard-working, honest and sober. They have no images in their houses. They reverence the ordinary Hindu gods, but Bahiroba and Khandoba, Bahiri and Devi, are their chief objects of worship. Their priests are Maratha Brahmans. They have a head-man who settles caste-disputes in presence of the caste-men.

Pardeshis : Pardeshis, literally foreigners, chiefly Brahmans and Rajputs from Upper India, were returned as numbering 2,202 in 1872 and as found over the whole district. They are strong, dark and tall, occasionally wearing a beard and long hair and sometimes shaving the head and face. They speak Hindustani. They are mostly Smarts and as a class, are fairly off. Other Hindus from Upper India, chiefly Nhavis or barbers, Dhobis or washer-men, and Mochis or shoe-makers, are found in small numbers. They are generally known by the name of their calling with the word *Pardeshi* placed before it, as *pardeshi Nhavi* or *Pardeshi Mochi*.

Early Tribes : Early Tribes included fourteen classes with a strength of 2,53,562 (males 1,29,512, females 1,24,050) or 33.10 per cent of the Hindu population in 1872. Of these 26 (males 24, females 2) were Bhils ; 2,890 (males 1,313, females 1,577) Dhodias ; 8,595 (males 3,633, females 4,962) Dublas ; 34,029 (males 16,611, females 17,418) Kathkaris or Kathodias ; 72,612 (males 36,180, females 36,432) Kolis ; 4,584 (males 2,873, females 1,711) Konkanis ; 106 (males 54, females 52) Phase Pardhis ; 65 (males 35, females 30) Raikaris ; 13 (males 7, females 6) Ramoshis ; 55,674 (males 28,638, females 27,036) Thakurs ; 341 (males 167, females 174) Vadars ; 16 (males 7, females 9) Vaghris ; 4,596 (males 2,385, females 2,211) Vaitis ; and 70,015 (males 37,585, females 32,430) Varlis.

Dhodias : Dhodias, returned as numbering 2,890 in 1872 and as found only in Dahanu, speak Gujarati at home and Marathi abroad. They are one of the largest early tribes in the Surat district, where they work chiefly as field labourers and hereditary servants, *halis*. Their gods are Jakhai and Jokhai. They have no priests and settle disputes by calling a meeting of the men of the caste. They are very poor.

Dublas : Dublas, or weaklings, returned as numbering 8,559 in 1872 and as found in Dahanu, Mahim, Bassein, Shahapur, Bhiwandi and Salsette, speak Gujarati at home and a mixed Marathi and Gujarati abroad. They have no sub-divisions and no surnames. They are found in large numbers all over the Surat district where they live chiefly as field labourers, and a few of them as land-holders and hereditary servants. Their chief objects of worship are Chaitya and Hirva, not Vishnu or Shiv like Brahmanic Hindus. They have no images in their houses and no priests. They keep Hindu fasts and feasts and seem to have made no recent change in their beliefs or practices. They have a head-man, *Patil*, who settles caste-disputes.

Kathkaris : Kathkaris, or makers of *kath*, that is *catechu* or *Terra japonica*, were returned as numbering 34,029 in 1872 and as found over the whole district.¹ Their settlements are chiefly in the centre and east, and they are rarely found along the coast north of Bombay.² They are believed to have entered the district from the north, and to have been originally settled in the Gujarat Athavisi, the present district of Surat. According to their story, they are descended from the monkeys which the god Ram took with him in his expedition against the demon-king Ravan of Ceylon. They say that when Ram became victorious, he blessed the monkeys and made them human beings. According to one account Kathkaris are divided into Sons of Marathas, and Dhors, and the Marathas are sub-divided into Helams, Gosavis and Povars.³ According to another account there are five Kathkari divisions, Sons, Dhors, Marathas, Sidhis and Varaps probably

¹ According to Molesworth the word *kath* comes from the Sanskrit *kvath* something boiled.

² Dr. Wilson says, Kathkaris are found along the base of the Sahyadris between the Nasik, and Poona roads, and some hundreds are settled east of the Sahyadri hill and in the same latitude. They are also found in the Bor and North Satara territories and in Kolaba. The 1872 Thana returns are, 6511 in Karjat, 5412 in Bhiwandi, 5174 in Vada, 4711 in Shahapur, 4535 in Kalyan, 3671 in Panvel, 2589 in Murbad, 1198 in Dahanu, and 1901 in Mahim.

³ The names of the two main divisions, Son and Dhor, also appear among the Kolis. Dhor is commonly supposed to mean cattle-eating, and Son either golden, red (Sanskrit *shoni*), or foreign (Dravidian Son or Sonag, Caldwell, 2,569). Mr. Ebdon C.S., suggests that the terms are the Kanarese Dodda old and Sanna new, the Dhors being the older, more purely local branch and the Sons the newer mixed with some late or foreign element. The difference in the character, position, and customs of the two classes, both among Kathkaris and among Kolis support this suggestion. Major Mackintosh mentions two other sub-divisions, Jadav and Shinde. Kathkari women were formerly said to carry off men of other castes. The youth's friends regarded him as an outcaste, and he stayed with the Kathkaris living with one of their women. (Trans. Bom. Geog. Soc. Vol. I. 329) Dr. Wilson (Aboriginal Tribes, 20) also speaks of their compelling strangers by the hands of their women to join their community. No relic of this practice has been traced.

reverts from Muhammedanism, and eight common Kathkari surnames, Bagle, Povar, Diva, Mukane, Vagh, Jama, Bhoir and Chavhan.

Kathkaris, as a rule, are much darker and slimmer than the other forest tribes. The Sons and some of the Dhors shave the face and head, and wear a very marked top-knot. But the northern cow-eating Kathkaris generally have long matted hair and wild beards. Their religion is not Brahmanic. Their chief object of worship is the tiger-god who is supposed to look with peculiar favour upon them and very seldom harms them, and they hardly ever go to shoot him. His image is generally set up in the forest or on the boundary of the village. But in parts as in Karjat where forests and tigers are scarce, there are many Kathkari hamlets without a tiger-god. What worship there is among the Kathkaris is paid to the Kunbi village god, *gavdev*. In a Dhor Kathkari's house there may sometimes be seen devil-gods whom they call Cheda. This is the soul of a dead relation which has become a spirit, but, capable of entering the bodies of men. It is the close connection with, and power over, spirits that make the Kathkari so dreaded by the Kunbi. The latter credits him with the power of the evil eye, and with being able by means of his spirits to compass the death of his enemies. Among the Dhors the only holidays are *Shimga* and *Divali*, to which the Sons add the fifteenth of *Bhadrpad*, when they perform ceremonies in honour of the dead. Kathkaris seem not to believe in any Supreme Being. If they are asked who made them and the world, they reply that they do not know and that it is impossible they should know. They find themselves and they find the world, and they take them as they find them, things which call for no explaining, or at any rate cannot be explained. Some are no doubt acquainted with the name and the idea of a Supreme Being. But they seem to have picked this up from the higher class Hindus, and the idea has never taken a root in their minds and become a belief. The tiger spirit which they worship is unfriendly, always ready and able to destroy, and therefore to be propitiated.¹ They have head-man called *naik* whom they consult on

¹ Of their ideas of God the late Dr. J. Wilson wrote in 1841: "The Kathkaris do not look upon God as the creator of the universe, the fount of moral laws, the giver of the human soul. They do not ascribe all these powers to Vagh, because they never dreamt of ascribing them to any one. Of the existence of a destroyer, they have daily proof; but idea of a Creator and Sustainer never occurs to them. The question of immortality and the ultimate destination of the human souls were treated by them in an equally matter of fact manner. They believe that when the breath is out of man, there is somehow or other, not an utter end of him: an idea which was strengthened, or perhaps started, by the constant ghost stories which abound in a hilly country like the Konkan. As to the nature of the future life, they have no idea."

all occasions and obey. Social disputes, between man and wife, are settled by calling a caste-meeting and fining the offending party.

Kolis : Kolis included a large number of tribes.¹ Their settlements stretch from the deserts north of Gujarat to Ratnagiri, inland by Pandharpur in the south of Poona as far east as the Mahadev or Balaghat hills in the former Nizam's Dominions, and, through the Central Provinces and Berar, north to Khandesh. That Kolis are found in about every village in Gujarat, the Konkan, and the Deccan ; that even in the hills they are skilful husband-men raising the finest kinds of rice ; that their appearance, language and customs do not differ from those of the neighbouring lower class Kunbis, seem to show that the Kolis held these provinces before the arrival of the later or Rajput-named Hindus. At the same time their use of such surnames as Chavhan, Povar and Jadhav, seems to point to some strain of the later or Rajput blood, which is found in greater strength among the higher cultivators and land-holders.

The Kolis, who are most famous in Thana history are Mahadev Kolis, a Deccan tribe, who apparently did not enter the Konkan till the close of the thirteenth century, perhaps in consequence of the movements of population caused by the Musalman invasion of the Deccan. According to the Koli story, it was the founder of Jawhar, whom, in 1347, Mubarak Khilji established as ruler of the North Konkan. But the details of the story are mythic and the power that was confirmed in 1347 must have taken time to establish. The Jawhar chief remained undisturbed till the arrival of the Portuguese early in the sixteenth century. During the sixteenth and seventeenth centuries he was a constant and much-feared enemy to the Portuguese, and remained rich and powerful till in the latter part of the eighteenth century the *Peshwa* filched from him his best lands. Besides the Agris whom both Mackintosh and Wilson class with Kolis, but who have been described under the head Husbandmen, the 1872 census showed a strength of 75,678 souls. Of the sea or Son Kolis some details have been given under fishers. There remain twelve tribes, Band, Chanchi, Dhor also called Tokre, Dongari, Khar, Mahadev, Malhari also called Chumli, Kunam and Panbhari, Marvi, Meta also called Dhungari, Raj also called Bhen, Solesi also called Kasthi and Lallanguti, and Thankar.

Chanchi Kolis : Chanchi Kolis were in 1836 about 1,000 strong in Bombay. They were said to have come from Junagad in Kathiawar.

¹ The 1872 census returns show 117,233 Kolis in Gujarat (94,151 in Rewa Kantha, 12,377 in Cutch, 7894 in Kathiawar, 2106 in Jambughoda, 450 in Dharampur and 255 in Bansda), 68,302 in Nashik, 39,207 in Khandesh, 11,671 in Kolaba, 4,006 in Ratnagiri, and a few about Thar or the Little Ran to the east of Sind. Beyond the Bombay Presidency they are found in Berar and in the Hoshangabad and Sarangad districts of the Central Provinces.

They are orderly and hard-working, earning their living as husbandmen, labourers and servants. They worshipped Thakurji and Mahalakshmi.

Chumli Kolis : See Malhari Kolis.

Dhor Kolis : Dhor Kolis, generally called Tokre Kolis, were returned as numbering 2,559 in 1872 and as found in Vada, Mahim and Shahapur. They also occur in Mokhada and a few in Peint, Nagar Haveli, Jawhar and Dharampur. They speak Marathi with an intonation like that of the Kathkaris, but they do not eat with, still less marry with, Dhor Kathkaris. They say that they do not worship Vaghya, Chita, Cheda, or any of the deities or demons known to other wild tribes. They observe *Shimga* (February-March) and *Divali* (October-November), and sometimes *Mahabij* as feast days.

Mahadev Kolis : Mahadev Kolis are found chiefly in Shahapur, Murbad, Karjat, Vada and the Jawhar State, and a few in Panvel, Kalyan and Bhiwandi. In 1836 their estimated strength was 3,500 houses. According to Mackintosh their original home was in the Mahadev and Balaghat hills, the western boundary of the Nizam's country. They came west many centuries ago, and settled first in the valley of the Ghoda river in Poona, and from there worked north and west into the Konkan, attacking and exterminating or embodying among their clans, or *kuls*, the Garsis, Sombatis and Gavlis. The story of the eastern origin of the Mahadev Kolis is supported by the fact, that in former times they were Lingayats and had their marriage and funeral ceremonies conducted by Raval Gosavis¹. It is not more than 120 years since the Rauls were driven out of their priestly offices, and the Kolis converted to Brahmanism by priests sent from Poona during the supremacy of the *Peshwas*. According to their own story the Mahadev Kolis did not pass into the Konkan till the beginning of the fourteenth century, when a Koli leader named Pauperah was told by a holy man in the Deccan to go to the Konkan, take Jawhar, and become its chief. Jawhar was in the hands of a Varli, and Pauperah was little inclined to carry out the holy man's advice. After wandering for several years in Gujarat he went to the Jawhar chief and asked for as much land as a bullock's hide could enclose. The Varli chief agreed, and when he saw his fort enclosed in the circle of leather stripes, he admitted Pauperah's superiority and was presented with the country round Gambhirgad. Shortly after Pauperah showed himself so loyal and friendly to the Musalman sovereign that he was given twenty-two forts and a country yielding Rs. 9,00,000 a year. Pauperah's

¹ It would almost seem that these Mahadev Kolis were a tribe of what are generally known as Kamathis. The Telugu speaking people from West Haidarabad are said to be called Kolis by the Musalmans of that part, and to resemble Kolis in some respects. Mackintosh in Trans. Bom. Geog. Soc. I, 202.

family held Jawhar chiefship for long, though their power and wealth were greatly reduced by the *Peshwa* between 1760 and 1766. The Kolis whose raids from the Ahmadnagar and Poona hills caused such serious trouble during the first twenty years of British rule (1818-1830), chiefly belonged to this tribe. According to Mackintosh the tribe is divided into twenty-four clans, or *kuls*, from each of which many off-shoots numbering two hundreds and eight in all have sprung. The main clans are the Vanakpal with seventeen sub-divisions, the Kadam with sixteen, the Pawar with thirteen, the Keddar with fifteen, the Dudvant with seventeen, the Namdev with fifteen, the Khirsagar with fifteen, the Bhagivant with fourteen, the Bhonsle with sixteen, the Polevas with twelve, the Utaracha with thirteen, the Dalvi with fourteen, the Gauli with two, the Aghasi with three, the Chavhan with two, the Dojai with twelve, the Sagar with twelve, the Shaikacha Shesha, apparently the followers of some Musalman saint, with twelve, the Ingtab with thirteen, the Gaikwar with twelve, the Suryavanshi with sixteen, the Kharad with eleven, the Sirkhi with two, and the Siv with nine.

Mackintosh held that these clans founded by individual leaders belonging to the higher castes, who from war or private feud had left their own people and taken to the hills. But it seems more probable that the Kadams, Pavars, Chavans, Bhonsles, and other Rajput named clans are of part Rajput origin. Mackintosh shows that they are partly at least of east Deccan blood, and that they are most careful to keep the Rajput rule against marriage among the members of the same clan. He also shows that in the eastern parts, especially near Junnar where the west or hill element is weakest, the Mahadev Koli is in matters of eating and drinking on a level with the Kunbi. The Musalman historians spoke of the Kolis as Marathas, and the Kolis have a tradition that, before the time of Shivaji, Marathas and Kolis inter-married.

Except that they are not so stout and robust, the Kolis differ little from the people of the open country and are greatly superior to Varlis in strength and appearance. Formerly some of them were men of bold and high bearing with a spirit of great independence and a keen love of freedom.

These Kolis were originally Lingayats and employed Lingayat priests, Raul Gosavis, and were not converted to Brahmanism till after the beginning of the eighteenth century. They adore the ordinary Hindu gods, but their chief object of worship is Khanderao, commonly called Khandoba, an incarnation of Mahadev, whose chief temples are at Jejuri and Bhimashankar in the Deccan. Bhairu, Bhavani, Hiroba and Khandoba are their household deities. They present offerings at the

tombs of Musalman saints, and at times pay divine honours to the spirits of those who have died a violent death.

In former times, before they were brought under Brahman influence, the Mahadev Koliṣ had a tribunal named Gotarani for settling social disputes and punishing breaches of morals and of caste-rules. There were six members, the president or *ragatvan*, the deputy or *metal*, the constable or *sablah*, the rod or *dhalia*, the cow bone or *hadkia*, and the earthen pot or *madkia*. These members were hereditary and acted under the authority of the chief Koli Naik who formerly lived at Junnar. The president, or *ragatvan*, who belonged to the Shesh clan, after consulting with the chief Naik, ordered the trial of any one accused of a breach of the rules, and no one was let back into caste till he had eaten from the same dish as the *ragatvan*. The deputy, *metal*, who was of the Kedar clan, helped the president and acted for him when he was away. The constable, or *sablah*, who was of the Khirsagar clan, moved from village to village inquiring into the people's conduct, seizing people accused of bad morals, and handing them to the president. The rod or *dhalia*, who was of the Shesh clan, placed a branch of *umbar* or *jambul* over any offender's door who refused to obey the council's decision. The cow bone, *hadkia*, who was of the Shesh clan, fastened the bone of a dead cow over an offender's door. This was the formal act of expulsion. But on becoming contrite the offender might again be admitted. The earthen pot, *madkia*, who was also of the Shesh clan, superintended the purification of the offender's house and took away his earthen grain pots. The usual punishment was a fine, part of which was paid to the members of the caste-council and part, if the fine was large, was used in repairing village temples.

Konkanis : Konkani were returned as numbering 4,584 in 1872 and were found only in Dahanu. They speak a mixed dialect in which Marathi is the stronger element. Their original seat seems to be in north Thana as they are found as immigrants in the south of Surat and in the west of Nasik. In Thana they are found only in the north of Mokhada and the east of Dahanu, and they have a tradition that their forefathers were brought from Ratnagiri to garrison the hill-fort of Gambhirgad. They worship Khandoba, Devi, the sun and the moon, and Cheda and Hirva. Their priests are Brahmans. They keep all the fasts and feasts observed by other Hindus. They have a head-man, *patil*, who settles their disputes.

Thakurs : Thakurs, or chiefs, returned as numbering nearly 55,000, in 1872, are settled in large numbers to the east and south-east in Shahapur, Murbad and Karjat ; they numbered about 5,000 in the centre and south-west in Vada, Bhiwandi, Kalyan and Panvel ; and they occur

in small numbers along the coast north of Bombay.¹ They are divided into Ka-Thakurs and Ma-Thakurs. The surnames of Ma-Thakurs are Vagh, Jambhya, Pardhya, Ghugre, Vara Kamli, Sid, Lachka and Satak ; those of the Ka-Thakurs have not been ascertained. They are a small squat tribe. In many places they can hardly be distinguished from Varlis. Their home-tongue is Marathi spoken with a long drawl. They are truthful, honest, teachable, and harmless.

At least one house in every village has some gods. The chief are Hirva, Cheda, Vaghia, Bahiri, Bhavani, Supli, Khanderao, Vetal, and the spirits of several mountains in Mokhada and Nasik. They are represented by silver plates with pictures on them, each plate having its corresponding round wooden block, painted and daubed with red lead. These blocks are kept in a covered sloping tray, called a *sinhasan* or throne. From a beam hangs the god Hirva, a bundle of peacock-feathers daubed with red lead, who, on his great day, *Dasara* (September-October), is worshipped with bread, goats and chickens. Outside the house, but close to the village, stands the village tiger god, *Vaghya*, whose great day is *Diwali*. The Thakurs have a strong belief in spirits, and are great worshippers of Hirva and are often possessed by *Vaghya*.

Varlis : Varlis probably originally Varalis or uplanders, and in old times of sufficient importance to give the name Varalat to the sixth of the seven Konkans were returned as numbering 7,015 in 1872. Their headquarters are in the north-west in Dahanu, where they formed more than half of the population. Lately a few have settled in Mokhada, Murbad and Kalyan. There are three sections in the tribe ; Murdes, Dayars and Nihiris. The first two who are found in the north, eat and drink together and inter-marry, but they neither eat, drink nor marry with the Nihiris who belong to South Mahim, Bassein, Jawhar and Wada. The speech of the Varlis differs little from that of the Kunbis. They always speak Marathi, except those in the extreme north who speak Gujarati. Besides the common tendency of the wilder tribes to clip their words, *kot jas* for example standing for *kothe jatos*, they use several non-Marathi words such as *nangne* to see.

Varlis do not consult or employ a Brahman at birth, marriage or death. They have no sacred books and no religious guides, except the mediums who are augurs and oracles rather than religious guides. They are unacquainted with the Brahman gods and have no idea of a creator, or Supreme Governor, though they believe in a future state. The god whom they chiefly worship is Vaghya or Vaghoba in the form of

¹ The 1872 returns are, Shahapur 24,247, Murbad 10,046, Karjat 7819, Vada 3,499, Kalyan 3,494, Panvel 3,243, and Bhiwandi 1,726.

a roughly-carved tiger or a piece of wood covered with red lead. The favourite place for Vaghya's image is on the village boundary or under a large banyan tree. They say that the tiger is Vaghya's dog, and that he comes about once a month to Vaghya's image to pay his respects, and lies there for some time. Every year in *Kartik* (October-November), all Varlis go to Vaghya and have a grand ceremony in his honour, daubing him with red lead and offering sacrifices. Their household god is Hirva who is represented either as a bundle of peacock's feathers, as a hunter with a gun, a warrior on horse-back, or a five-headed monster riding a tiger. He is worshipped at intervals all the year round, but his great day is in *Margashirsh* (November-December). They also worship the god Narayan and the goddess Humai. Like the Kathkaris, they sometimes set up Cheda the devil-god in their houses, but unlike Kathkaris, they are not on good terms with Cheda and hang up his image only to appease him. They never worship Bhiri, Bhavani or Supli, as household gods, and the only festivals they have in common with the Kunbis are *Shimga* (February-March) and *Divali* (October-November). Their gods and goddesses are not found in every house but in the houses of the well-to-do, where the rest come and worship especially in *Magh* (January-February).

Chambhars : Chambhars who numbered 7,113 in 1872 are found throughout the district. They are divided into Chevlis or people from Chaul, Dabholis or people from Dabhol, and Ghatlis or Deccanis. They are dark with lank hair, and generally shave the head except the top-knot. They speak Marathi and are hard-working. They worship the ordinary Hindu gods and have images of Khandoba, Bahiri, Jakhai and Jokhai in their houses. They keep the usual Hindu fasts and feasts. Brahmans marry them and Kumbhars officiate at their death ceremonies. They have a community and settle disputes as meetings of the men of the caste. The price of their ware has lately risen, and they are on the whole well-to-do.

Depressed Classes : Depressed Classes included five castes, viz., Bhangis, Kaikadis, Dheds, Mhars and Mangs.

Bhangis : Bhangis, perhaps originally workers in split bamboos, were found in municipal towns in Mahim, Dahanu, Shahapur, Bhiwandi, Salsette and Kalyan. They are of three sub-divisions : Kathevadis, Gujaratis and Panjabis. They speak Gujarati and Hindustani, and are a quiet weak class, timid, extravagant and almost never guilty of theft. They have no head-man and settle their disputes by a general meeting of the men of the caste.

Dheds : Dheds were found in Mahim, Dahanu, Salsette, and Kalyan. They speak Gujarati at home. They have priests of their own, known as Garudas, who apparently are degraded Brahmans, and

they never require the help of any other priest. *Shimga* (February-March) and *Divali* (October-November) are their only feasts. They settle disputes at meetings of the men of their caste. Caste authority has not declined.

Mhars : Mhars who numbered 47,236 in 1872 are found over the whole district. They are divided into four classes, Somvanshis, Pans, Surtis and Daules. Their commonest surnames are Jadhav, Gaikwad, Madar, Shelar, Mashya, Lokhande, Bhoir, Salvi, More and Ubale. Thana Mhars were brought from the Deccan by the Marathas. The Mhars are generally tall, strong, muscular, and dark with fairly regular features.

Mhars do not belong to any particular sect. Most of them worship Vithoba of Pandharpur in Sholapur district who is an incarnation of Vishnu and probably a Buddhist image. Besides Vithoba, they have many family-deities, as Mhaskoba, Janai, Gavri, Bahiroba, Khandoba, Chokhoba, Bhavani, Elma, Giroba, Babdev, Chedoba, Jakhai, Sonnai, Kalkai and Jokhai. Some in addition worship pieces of wood as emblems of their fore-fathers, and the fish *bhadvī* which is found in most creeks. Their favourite places of pilgrimage are Vithoba's temple at Pandharpur about forty miles west of Sholapur and Dnyaneshvar's shrine at Alandi twelve miles north of Pune. Their religious guides, *gurus*, whom they call Gosavis or Sadhus, belong to their own caste. Most of them have converted to Neo-Buddhism under the call of Dr. B. R. Ambedkar whom they revere. Mhars generally live in a separate hamlet or quarter of the town. Their disputes are settled either by a council, *panchayat*, under an hereditary head-man, or by the men of the caste. The caste decision is enforced by forbidding the caste people to smoke or drink water with the offender, or by exacting a fine from him.

Mangs : Mangs who numbered 420 in 1872 are found in Vada, Shahapur, Bhiwandi, Salsette and Kalyan. They are divided into Mang Garudis, Mang Zares and Bale Mangs, who eat together but do not inter-marry. Their surnames are Gaikwad, Jogdand, Kalekar and Jagtap. They are a dark people and wear whiskers, moustaches and the top-knot. They speak Marathi. They are hard-working. They worship the ordinary Hindu gods, and their household deities are Bahiri, Khanderao and others goddesses. Their priests who are Konkanasths, Deshasths and other Maratha Brahmans, perform their marriage services but without going into their houses. They have no head-man, and settle their disputes at meetings of the men of their caste.

Beggars : Devotees and religious beggars included twelve classes, viz., Bairagis and Gosavis, Bharadis, Chitrakathis, Garudis, Gondhalis, Jangams, Joharis, Joshis, Kapdis, Kolhatis, Manbhavs and Vasudevs.

Bairagis and Gosavis are found over the whole district. The Bairagis are recruited from all castes. They are generally dark, and allow the hair to grow over the head and face. They speak Hindustani. They are kind and hospitable.

Gosavis : Gosavis are of four classes : Giris, Puris, Bhartis and Kanphates ; the Giris are Shaivs and the Bhartis Vaishnavs. Most of them are hereditary Gosavis. They are either Smarts or Bhagvats. They carry images of their gods with them, and worship them when they halt. They observe *Ramnavmi* (March-April), *Gokul-ashtami* (July-August), *Dasara* and *Diwali* (October-November). They have a head-man with the title of *Mahant*. In cases of dispute they go to places where there is a gathering of their people, such as Allahabad, Banaras, Puri and Dwarka, and there the head-man settles the matter in the presence of all the ascetics.

Jangams : Jangams, literally movable, that is, wearers of the movable *ling*, are found in Shahapur, Murbad, Bhiwandi and Kalyan. They are the priests of the Lingayat faith and are almost all immigrants from the Kanarese country. They generally shave the head and the face except the moustache. Their home-tongue is Kanarese, but out-of-doors they speak Marathi. They are clean, sober and thrifty. They are the priests of the special form of Shaiv worship that was founded, or perhaps renewed, by Basav.

CHRISTIANS

Appearance : Among Thane Christians, faces of a European or of a Negro type are sometimes seen, but as a rule, neither men nor women differ much in form or feature from local Hindus of the same class. Both men and women are neat and tidy in their dress.

Food : Except some of the richer families who have three meals a day about nine, about one, and about eight in the evening, the bulk of the Thane Christians eat only twice about noon and about eight at night. Unlike Hindus the whole of the family, men, women and children eat at the same time. They live on rice, *nagli*, *vari*, pulse, vegetables, mutton, beef, pork, fowls and fish. On festive occasions they make rice-cakes and eat them with mutton, potatoes and plantains. A large number are in the habit of regularly drinking tea and coffee.

Dress : There is considerable variety in their dress. Among the well-to-do the men dress in European fashion, generally in black. The poorer classes wear tight trousers of coloured cotton cloth coming to the knee, and an inner jersey and cotton jacket. Among men the head-dress varies greatly ; the upper classes wear the English hat, cart-drivers and husbandmen wear a long cylindrical white cotton hat or

a woollen night-cap with or without a checked kerchief tied round the temples, fishermen wear red broadcloth caps, and palm-tappers wear either skull-caps or night-caps.

Almost all the women dress in local Hindu fashion. Among the poorer classes the robe is worn tight and does not fall below the knee ; the upper classes wear it full falling close to the ankle. Unmarried girls do not draw one end of the robe over the upper part of their bodies, and married women wear the upper end over the right shoulder not like most Hindus over the right temple. The robe is generally of cotton and in colour dark purple, green or black. The bodice is loose, full-backed and long-sleeved, and is tied in front under the bosom. For ordinary wear it is of cotton and for special occasions of silk or of brocade. When they go to church, women cover themselves with a white sheet-like cotton robe that hangs from the head to the ankle, and is worn with considerable grace falling from the head in free outward curves, showing the face and rich necklace, and caught with the hand at the waist, and from there falling straight to the feet. Some years ago the women of some families took to wearing European petti-coats and jackets, but the tendency of late has been to go back to the Hindú robe and bodice.

Religion : In religious matters Thane Christians belong to two bodies—those under the jurisdiction of the Archbishop of Goa and those under the jurisdiction of the Vicar Apostolic of Bombay. Their spiritual matters are managed, chiefly by members of the Order of Jesus. Besides at Bandra where they have a church of St. Peter and two native orphanages, they have churches and vicars at the villages of Man, Kanchavli, Gorai and Juhu.

The Christians have a sufficient knowledge of the doctrines of their faith, and show their attachment to their religion by freely contributing to their churches and to the support of their priests. As a rule they go to church regularly, and on great festivals very few are absent.

Many of the lower orders of Christians share the local beliefs in omens, lucky days and magic. The authority of the priest is too great and his disapproval of such practices is too strong to allow the worship of Hindu gods or Musalman saints to be openly performed.

Birth: For the first confinement a young wife goes to her parent's house, taking sweetmeats which she distributes among her relations and friends. On the third or the sixth night after a child is born, many of the lower order watch the infant in case it may be attacked by the spirit *Sathi*, and strew gram on the doorway that if the spirit comes she may fall. Except that the midwife sometimes claims a fee having watched all night, this custom is said not to be observed among the upper classes. Between the eighth and fifteenth day, if the child is

healthy, an appointment is made with the Parish priest, and at any hour between sun-rise and sun-set the child is taken to the church by its god-father, *padrinha*, and god-mother, *madrinha*, followed by a company of friends and relations. The mother never goes to the christening.

Baptism: The order of baptism is laid down by the Catholic church. When the company reach the church-door, the priest, in his surplice and violet stole, receives the name of the child and asks a few questions, which the clerk of the church answers for the child. In order to drive the devil away and make him give place to the Holy spirit, the priest thrice breathes upon the face of the child saying, "*Exi ab eo*", "*Go out of him*". He then makes the sign of the cross upon its head repeating verses. Laying a little salt in the child's mouth he again makes the sign of the cross upon its fore-head, and repeats verses. After this the priest lays the end of the stole upon the body of the child, and admits him into the church, saying, "Enter into the temple of God that thou mayest have part with Christ unto life ever-lasting ; Amen." When they have entered the church the priest, jointly with the sponsors, recites the Apostles' Creed and the Lord's prayer. The priest next exorcises the child, and taking spittle from his mouth, applies it with his thumb to the ears and nostrils of the child, saying in Latin in a loud voice, "Thou too fly away, O Satan ? ". He then questions the sponsors, and anoints the child on the breast and between the shoulders in the form of a cross, and changing his violet stole for a white stole, asks a few questions. Then the god-father or the god-mother, or both, holding the child or touching the person to be baptised, the priest takes water in a small vessel and pours it thrice on the head of the child or person in the form of a cross, at the same time repeating distinctly the words, "I baptise thee in the name of the Father, and of the Son and of the Holy Ghost." After this the priest anoints the child on the top of the head in the form of the cross, and then places a white linen cloth upon it, saying, "Receive this white garment and see that thou bringest it stainless before the judgment-seat". He then gives a lighted candle to the child or to its god-father, repeating verses, and ending by saying, "Go in peace and the Lord be with you : Amen." Among the upper classes friends are offered sweetmeats, and near relations are feasted. The poorer classes burn incense at the door of the house before the child enters it, and the guests make presents to it and have a feast, of dates, gram and molasses. The priest is sometimes asked to attend the feast, but more often a present of wine and other articles is sent to his house. At the feast the guests sometimes subscribe. If an infant is sick, it may at any time be baptised, at its parents' house, by the priest or by some intelligent member of the family, or by a neighbour who has learnt the

formula. After recovery the child is taken to church to have the holy oil applied. On the fortieth day some parents take the child to church, and the mother also goes and is purified on that day or after an interval of two, three or five months the young mother goes back to her husband's house taking the child and some presents of sweet rice-flour balls, cocoanuts, boiled gram and clothes.

Marriage: Among Salsette Christians the marriageable age for boys is above fourteen and for girls above twelve. But boys do not generally marry till after twenty, and girls till between fourteen and sixteen. Parents take great pains to secure a good match for their daughters. They propose to the boy's parents, and the boy and girl know their parents' wishes, but except when they are grown up, which is seldom the case, they have no choice. The chief point for agreement is the amount of money the bridegroom is expected to settle on his wife. It is usually paid in the form of ornaments, seldom in cash. When a match has been privately arranged, the boy's relations or friends go by appointment to the girl's house, and in the presence of the priest and a witness or two are formally asked if they accept the girl on certain conditions as to the amount of dowry. Among the well-to-do a written contract is drawn up. Rings or other articles of jewellery are also exchanged between the boy and girl, sweetmeats are served, and if the boy's party have come from a distance, this is sometimes followed by a dinner or supper. After the betrothal, marriage may take place in a few weeks or it may be put off for months or years, as suits the convenience of the parties. From two to five days before the wedding, booths are built at the bride's and at bride-groom's houses, and friends are asked to the wedding both by message and by writing. For two or three months before the wedding the boy and girl, if they have not been taught before, are instructed by the priest or the sacristan in the doctrines of the Christian faith. A day or two before the wedding the boy and girl attend the church to confess and receive the communion.

Except among the Kolis, who are married in the after-noon with native music, weddings take place between eight and ten in the morning. The bridegroom generally walks to church with a company of friends and shaded by a large long-handled silk umbrella. If he belongs to an upper class family, he dresses in a black hat, an evening or frock coat, and light waist-coat and trousers. If he belongs to the lower classes, he wears the full dress of bygone days, a scarlet or black military coat with cocked hat, epaulets, knee-breeches, stockings and shoes. The bride comes with the men of her family and sometimes with one or two girls as bride's maids, and, if it is a holiday, with the whole company of wedding guests. She rides in a palanquin, or *doli*, and has a long-handled silk umbrella held over her. If she is a rich girl

she is probably dressed in modern English fashion, a white silk or muslin gown, or a brocaded petti-coat and bodice and a black mantle and veil in the old Portuguese style. Some wear the ordinary full dress, the Hindu robe and outer sheet of white cloth. Brides of the lower classes wear a Hindu robe falling to the feet instead of their short every-day robe and the white over-all.

When the two parties have met in the church, the priest, dressed in a surplice and white stole and accompanied by at least one clerk to carry the book and a vessel of holy water, and by two or three witnesses, asks the bridegroom who stands at the right hand of the woman, "Wilt thou take A. B. here present for thy lawful wife, according to the rite of our holy Mother the Church?" The bridegroom answers "I will." Then the priest puts the same question to the bride, and she answers in the same words as the bridegroom. Then the woman is given away by her father or friend. The man receives her to keep in God's faith and his own, and holds her right hand in his own right hand, the priest saying, "I join you together in marriage in the name of the Father, and of the Son, and of the Holy Ghost : Amen." Then he sprinkles them with holy water. When this is done the bridegroom places upon the book gold and silver, which are presently to be delivered into the hands of the bride, and also a ring, which the priest blesses. Then the priest sprinkles the ring with holy water in the form of a cross, and the bridegroom having received the ring from the hands of the priest, gives gold to the bride, and says, "With this ring I thee wed, this gold I thee give, with my body I thee worship, and with all my worldly goods I thee endow." Having said this the bride-groom places the ring on the third finger of the bride's left hand. The priest repeats verses, and if the nuptial benediction is to be given, a mass is said. Then the priest, standing at the epistle side of the altar and turning towards the bride and bridegroom who are kneeling before the altar, repeats prayers over them. Next he returns to the middle of the altar, repeats a verse, gives them the communion, and proceeds with the mass ending with a blessing.

When the ceremony is over the company form in procession, sometimes led by musicians, the bride and bridegroom coming next either in a carriage or palanquin, or walking holding hands or arm in arm and the wedding guests following. When they reach the bride's house, the newly-married pair stand at the entrance of the booth and receive their friends' congratulations. Each friend in turn throws a few flowers, leaves or sprinkles some drops of rose-water on their heads, shaking hands, or if they are near relations kissing or embracing, and, if they have them to give, making presents. Sweetmeats are handed round, first to the bridegroom and bride, and then to the guests. The bride and bridegroom are then led into the house, and the bride's

party pass the time till dinner in singing, joking, and making merry. Meanwhile the bridegroom's party leaves, for some neighbouring house, and before dinner bring the bridegroom's presents, a rich robe and bodice, and a gold necklace which the bride wears so long as her husband is alive. Among the well-to-do the wedding dinner is laid and served with many dishes. The poorer classes have less variety, but almost always have two excellent dishes or cold pork, vinegar, and spices that remain fresh during the whole festivities which last for several days. A piece of shop-made bread is set beside each guest, but they seldom eat any but home-made leavened and unleavened bread and sweetmeats. The poorest families sit on mats and eat off leaf-plates. They have generally only one chief dish of pork or a dish of dried prawns. When dinner is over they sing, dance, and make merry. Late in the evening, or next morning, the bridegroom and bride with the bridegroom's party go to his house, where they have a dinner to which the bride's near relations are asked. After the dinner comes more singing, dancing and merry-making. Next day the bridegroom and bride are asked to the bride's parent's house, and for about couple of days, the young couple pay visits to their friends and relations.

Death : When sickness takes a fatal turn, the priest is sent for, and, if he is able, the dying man confesses, the priest anoints him with holy oil, and sits besides him praying and repeating verses. When the sick man is dead, the church bell is tolled that the parish may know and offer prayers for his soul, and messages or letters are sent to friends at a distance to tell them of the death and of the time of the funeral, which generally takes place within twenty-four hours. Arrangements are made with the priest as to the style of the funeral and the position of the grave. On hearing of the death neighbours come in, the body is washed and dressed, among the rich in its best garments and among the poor in a calico habit supplied by the church, like a monk's robe, in shape like a Franciscans's and in colour like a Carmelite's. After the robing is over, the body is laid on a bed with a crucifix at the head and a candle on either side. A table is set in the largest room in the house covered with a black cloth, or if the dead is a child, with a white sheet. On this the coffin is set and the body laid in it, or if there is no coffin the body is laid on the table. The coffins of the unmarried are lined with white, and the bodies of children under seven are decked with flowers. Six or more candles are set round the coffin or round the body if there is no coffin, and lighted when the priest begins to read or chant the prayers. When the last prayer is finished, if the dead has left a widow she takes off some of her ornaments, and, unless she is very young, never wears them again. Among the mourners the men wear black, and the women, if the family is well-to-

do, black robes, and in all cases a shawl which near relations draw over the head and friends wear round the shoulders. If the dead belonged to one of the guilds or brotherhoods, of which there are several in most parishes, the members, if there is no coffin, lend a bier, and themselves attend in their robes holding lighted candles or helping to carry the coffin. When all is ready the procession starts to the church if the priest goes no further, and to the grave, if the priest has been asked to perform the service there. As the funeral party moves along the church bell tolls and the priests and chorister chant hymns. At the church or at the grave the service is read with fewer or more prayers, according to the arrangement made with the priest. Unbaptised children, or people who have been put out of the church, are buried by themselves in unconsecrated ground. When the service is over, all return to the house of mourning, and the guests condole with the members of the family, holding their hands or embracing them if they are near relations. Some friends, those who have come from a distance or have been most helpful, are asked to stay and share the next meal which is generally plain, one or two dishes of meat or fish. In some cases friends come on the seventh day after death, and go with the mourning family to the church to pray for the dead and then return to their house to dine. Formerly friends supplied all that was wanted for the funeral dinner, including the expense of the dinner or supper after the ceremony is over, but this custom has died out.

MUSALMANS

House : Well-to-do Bohoras, Khojas, Memans, Konkani and other town traders have large two or three storied houses of brick and mortar with tiled roofs and from six to ten rooms, some of them furnished with tables and chairs (in European style). The artisan classes, Attars, Bagvans, Julahas and Rangaris live in hired houses, generally the property of some rich Konkani. They seldom use tables or chairs, but are fond of decorating their houses with copper, brass and clay vessels, and have a cot or two with some quilts and blankets. The husbandmen who live in smaller houses, generally of one storey with from three to five rooms, use very little furniture, a few copper and brass and many earthen vessels, with a cot or two and some quilts and blankets.

Food : The ordinary food of the rich and well-to-do Konkani is rice both boiled and made into bread, pulse, vegetables, fish and mutton ; that of the Memans and Bohoras, rice, wheat, bread, and pulse with vegetables, mutton and fish ; that of the Deccanis, millet bread and pulse with vegetables, fish and chillies ; and that of Julahas, wheat bread and *udid* pulse, *Phaseolus mungo*. Almost all take two

meals a day, breakfast about nine or ten in the morning and supper between six and eight in the evening. Besides the two main meals a few of the rich and well-to-do drink tea, with bread and eggs about seven in the morning.

Except Deccanis and Julahas almost all well-to-do townsmen eat mutton daily, and the rest, even the poorest, try to have mutton at least on the *Ramzan* and *Bakri Ids*, and other festivals. Konkanis are specially fond of fish and never let a meal pass without eating it either fresh or dry. Buffalo and cow beef, though eaten without scruple and popular because of its cheapness is seldom offered for sale. Some rich Konkanis, Khojas and Memans eat fowls and eggs, either daily, weekly or once a month.

Public dinners are generally the same among all classes, either *biryani* and *zarda*, or *pulao* and a *dalcha*. *Biryani* is a dish of rice boiled with mutton, clarified butter and spices, and *zarda* is a sweet dish of rice boiled with clarified butter, sugar, saffron, almonds and cardamoms, cloves, pepper and cinnamon. *Pulao*, which is given by the middle classes and the poor, is rice boiled with clarified butter and eaten with mutton curry, with pulse or vegetables. These dinners are given on marriage, death, initiation or *bismillah*, and sacrifice or *akika* ceremonies.

Dress : The man's head-dress is generally a turban. The Syed's turban is white or green ; the Konkani's white and in shape either like a Parsi's or a Maratha Brahman's ; among Deccanis white or red like a Maratha's ; among Bohoras white and closely wound ; and twisted among Sipahis. Most other classes wear a loosely rolled white, red, yellow or orange cloth, and the Julahas generally a thin muslin skull cap. Cotton turbans are used daily and silk turbans on holidays and at feasts. The everyday turban lasts for about two years, and the dress turban for more than twenty years. Syeds, Konkanis, Bohoras, Memans, Tais and Julahas wear a shirt falling to the knees, and over the shirt a waist-coat and a long coat ; Deccanis wear a tight-fitting jacket and long coat ; and Sipahis a long coat apparently without a waist-coat. The rest of the lower classes, such as butchers, Hajams and Dhobis, dress in a shirt and waist-coat or a tight-fitting jacket. Over the lower parts of the body, Syeds, Konkanis, Bohoras, Memans, and some Tais wear loose trousers ; Sipahis, Julahas, and some Deccanis tight trousers ; and some Deccanis, and some Tais, a waist-cloth. Except a few young Syeds, Konkanis and Khojas, who use country-made shoes and stockings, almost all Musalmans wear country shoes of different fashions. Bohoras, Memans and Khojas prefer the Gujarat shoe ; Konkanis the Gujarat high-heeled and cocked shoes and sandals ; Deccanis the Deccan low-heeled slipper or shoe ; Sipahis and Julahas

the Hindustani Delhi broad shoes ; and the rest of the lower classes the local sandals and high-heeled *paiposh*.

Among Musalmans Syed women wear the head-scarf *odhani*, the sleeve-less short shirt *kudti*, the short-sleeved backless bodice *angia*, and tight trousers ; Julahas wear a head-scarf, a long sleeve-less shirt and tight trousers ; Konkans and Deccanis wear the Maratha robe and short-sleeved bodice, covering the back and fastened in a knot in front ; the Bohoras, Sipahis and Tais wear the Gujarat dress, the short head-scarf, the gown or petti-coat *ghagra*, and the short-sleeved backless bodice, *kanchli* or *angia* ; and the Khoja and Meman women wear a large shirt, *aba* coming down to the knees, a pair of loose trousers and a head-scarf, *cohni*. Except Bohora and Konkani women who wear wooden sandals in-doors and leather slippers on going out, no Musalman women wear shoes. Except Syeds and a few of the richer Konkans, Bohoras and Memans, the women of most classes appear in public. Konkani women, when they go out draw over their heads a loose white sheet that covers the body except the face and feet, and Bohora women wear a large dark cloak that entirely shrouds their figures, with gauze openings in front of the eyes. Other women wear the same dress out-of-doors that they wear in the house. Except Meman, Khoja and Bohora women, who almost always dress in silk, the everyday dress is of cotton. The colour is red or yellow, and white among Konkani widows. Almost all have at least one or two silk suits for occasional use. Poor Julaha women have seldom any silk robes and not more than two changes of cotton raiment. Konkani women have also a large store of clothes. Most of them are wedding presents from their husbands and parents, and besides this, parents, if well-to-do, generally send their daughters presents of clothes on *Ramzan* or *Bakri Id*. Deccani women, who like the Konkans get a large stock of wedding clothes from their parents and husbands, have in most cases one or two costly changes, and the rest are of low price for daily use. The costly robes which generally last for a lifetime are worn only on ceremonies and holidays. The other classes such as the Hajams, Dhobis, and many Julahas, are poorly clad and seldom have more than two changes. Whenever they can lay by anything out of their income, they try to buy a suit that will last them for a year.

Ornaments : Except a few butchers and betel-leaf sellers, who if they can afford it, wear a large gold ear-ring in the right ear and a silver chain on the right foot, no Thane Musalmans wear ornaments. Bohora, Khoja and Meman women always wear gold neck-laces and bracelets, their only silver ornament is the anklet for which gold may not be used. Konkani, Syed and Deccani women also wear only silver anklets but their bracelets and neck-laces are of silver as well as of gold. Among these classes no married woman is ever without a *galsar*

or neck-lace of gold and glass beads, which is put on the night after marriage and is never taken off so long as the husband is alive. Besides this neck-lace almost all women begin married life with a good stone of ornaments. Their parents give them at least one nose-ring, a set of ear-rings of gold among the well-to-do and of silver among the poor, and silver finger rings; and their husbands are bound to invest in ornaments as much money as the dowry. Among the poor Deccani classes a woman seldom keeps her full stock of jewels. Most of them disappear by degrees in meeting special expenses and in helping the family through times of dear food or scanty work.

Holidays : Almost all traders, shop-keepers and craftsmen rest on the *Ramzan* and *Bakri Ids*, and on the last two days of the *Muharram*, *Khojas* and *Bohoras*, in addition to the regular holidays, rest for a day if they hear of the death of one of their leading men, or of their head priest, or of one of their relations. On such occasions other Musalmans, though they do not work themselves, employ some one to look after their business.

Community : Except the Syeds who marry with the main body of Deccan Musalmans each of the ten leading Musalman classes forms a separate community in matters of marriage. These communities have a more or less strict control over their members. Most of them have a written or unwritten code of rules referring to social and religious questions, seldom if at all to matters of trade. Any member who breaks the class-rules is liable to a fine. Social disputes are settled and breaches of rules punished, either by a head-man generally styled *chaudhari* among the Deccanis, or *patel* among the butchers, or by the majority of the men at a special meeting. In six classes, *Bohoras*, *Khojas*, *Kasais*, *Julahas*, *Tais*, and Deccan fruiterers, the decision rests with a head-man. This head-man is either simply the social, or both the social and the religious head. Among the *Kasais*, *Julahas* and *Bagvans*, where his authority is simply social, the head-man seems, as a rule, to be chosen from among the most respected and richest families, by the votes of the adult male members. Head-men of this type are expected to ascertain and to carry into effect the wishes of the majority of the class. On the other hand, with the *Bohoras*, *Khojas* and *Tais*, where the head-man is the religious as well as the social leader, his succession is generally hereditary, or at least the choice is limited to the member of certain families, and in settling disputes, he is in no way bound or expected to be guided by the opinion of the majority of the members. Five classes, *Konkanis*, *Memans*, *Hajams*, *Wajhas* and *Sipahis* have no head-man. They settle disputes and enforce rules by calling the men of the community together, when the oldest and most respected of the members passes a decision. With his consent a fine is imposed and levied. Among most Musalmans, class

organisation is somewhat slack, and the fines are wasted on public dinners. But among the Konkanis, Bohoras, Khojas and Memans, the organisation is complete and the sums collected are either set aside for the repair of mosques or for the relief of the poor.

Religion : Thane Musalmans as a body are fairly religious. Mosques are numerous and in good order, Kazis are respected, alms giving is liberal, and at least on the *Ramzan* and *Bakar* festivals, attendance at public prayers is usual. Though some of their social observances are more or less Hindu in spirit, they seldom worship or pay vows to Hindu gods.

Places of worship : There are a number of mosques kept in good repair by wardens and managers. One interesting ruined mosque at Kalyan, called the Kali masjid or black mosque, has a date-line, "The ever fortunate man won the stake of generosity" which shows that it was built in H. 1054 or A. D. 1643. Almost all the mosques are old, and though no effort is made to add to the buildings the Konkanis try their best to keep them in repair. These mosques are generally built of massive walls of stone and mortar. A large gateway leads to courtyard from forty to fifty yards long and about twenty wide. In the court is a pond about twenty feet square, its sides lined with stone. Opposite the gate is the place for prayer, a cement-plastered brick pavement raised about a foot above the ground. This is open to the east and closed on the other three sides, and is covered by a tiled roof. About the middle of the west of Mecca wall is an arched niche, *mehrab*, and close by a wooden or masonry pulpit, *mimbar*, raised four or five steps from the ground. Against the wall near the pulpit is a wooden staff, which, according to old custom, the preacher holds in his hand or leans on. The floor is covered with cane or date matting, and the walls are white-washed. To meet the cost of repairs and lighting, most mosques have some small endowment, the rent of lands, houses or shops. These funds are entrusted to some rich respectable members of the congregation, who are known as *Mutavalis* or managers. If there is no endowment the charges are met by subscription.

Besides the mosques there are some *idgahs* or *namazgahs*, the special prayer-places which are used only by Sunnis and generally built outside the town. The Thane *idgahs* are old buildings, and as the Thane Musalmans generally hold their special services in the mosques, the *idgahs* are in ruin, and the *Ramzan* and *Bakar* services are held in the mosques.

Of the Shia communities, besides the three mosques at Thane, Bhiwandi and Kalyan, the Bohoras have several meeting houses, *jamat khanas*, in smaller towns where they hold their services, and the

Khojas have *jamat khana*s or meeting houses in almost all of the larger towns.

Fairs: There are three leading Musalman fairs, at Bhiwandi, Kalyan and Dahanu. The Bhiwandi fair is in honour of Pir Shah Husain Saheb, commonly known as Diwan Shah, who died in 1665. He was a Bijapur minister who retired to Bhiwandi to lead a religious life, and after his death had a tomb built for him by his daughter's grand-son Kutb-ud-din Sajjadah Nashin in 1711 (*H.* 1125). His fair is held every April or May and is attended by more than three thousand persons. There is a considerable sale of sweetmeats, children's toys, and other fancy articles. The Kalyan or Malanggad fair is held on the Malanggad hill ten miles south of Kalyan. This fair is held in honour of Haji Abdul Rahiman, an Arab missionary, who is said to have died about 800 years ago, and whose sanctity is said to have gained him the favour of the reigning Hindu king Nal Raja, whose daughter he is said to have married. His fair is held every year on the *Magh* (January-February) full moon, and is attended by large numbers of Hindus and Musalmans from Kalyan, Panvel, Thane and Bombay. It lasts for four or five days. The Dahanu fair is in honour of Shaikh Babu Saheb of Bagdad, who came to Western India about five hundred years ago. His fair was once attended by large number of people from the Deccan and Gujarat, but latterly fell into neglect. It has again been started by the present manager.

Customs: Most Thane Musalmans let their women appear in public. The only women who never go out are Syeds and some rich Konkani. Konkani women who go out wear a large white sheet that covers the whole body except the face and the feet; and Bohora women wear a dark cloak that falling from the head with gauze openings in front of the eyes completely shrouds the figure. The rest allow their women to appear in public in the same dress as they wear at home. Except the Bohoras, Khojas, Julahas and Tais, who do not employ the regular Kazi at their marriages, almost all Thane Musalmans have their marriages registered by the regular Kazi and pay his dues. Among the Konkani and most of the Deccani, marriages are performed at an early age. For the sake of economy there is seldom a betrothal service, and, if they can afford it, most Musalmans try to marry within a month or two after the betrothal. The marriage ceremonies last for six days. The first four are spent in seclusion, *manjha*, applying turmeric to the bodies of the bride and bridegroom. At ten in the morning of the fifth day, gifts of henna pass between the bride and bridegroom's houses. In the afternoon the dowry, *bari*, comes from the bridegroom to the bride, including ornaments, clothes, sugar, cocoanuts, betel-leaf and betel-nut; and in the evening the wedding procession, or *shahgasht*, passes with music

from the bridegroom's house to the bride. When the procession reaches the bride's house, the Kazi or his deputy is asked to register the marriage, and, after the marriage is registered, he is paid his fee and withdraws. The rest of the night is spent by the men in listening to hired dancers and musicians, and by the women in singing in the women's rooms apart from the men. Except a few intimate friends, the guests leave before morning. In the morning a feast is given at the bride's house, and in the afternoon the bridegroom is summoned to the women's rooms where the *julwa* ceremony is performed by the *domnis*, or *zenana* songstresses. This ceremony consists in making the bridegroom to sit on a bed, and in bringing in and seating before him the bride who is arrayed in her wedding garments, with her face hidden in a large white sheet. The bridegroom is then shown his wife's face in a mirror, the first time he has seen it, the *Kuran* is placed between them, and the chapter called "Peace" is read. When the bride has bid farewell to her father and mother, the bridegroom lifts her in his arms and lays her in a palanquin, and with pomp and music takes her to his home. At the bridegroom's house the bride and the bridegroom retire to their room, the women of the family spending most of the night in singing and merriment. Among the Deccanis, on the first four Fridays after the marriage, parties are given by the bridegroom's relations. Few Konkanis and Julahas have any ceremony on the seventh month of the first pregnancy. Except Julahas almost all Musalmans observe the Hindu rite of *chhati* on the sixth night after a birth, when the goddess of fortune writes the child's destiny. The Hajams are especially careful to perform this rite, keeping a pen and an ink-stand near the child through the whole night. The sacrifice or *akika* ceremony is performed by the Konkanis very early, by some when the child is three and by others when it is six months old. Deccanis and others perform the ceremony later whenever they can afford it. For a girl one goat and for a boy two goats are killed, and a few friends and relations are asked to dinner, when the sacrifice is eaten all taking a share except the child's father and mother. When a boy or a girl is four years four months and four days old, the *bismillah* or initiation ceremony is performed. Parents ask only a few friends and relations, make the child repeat the word *bismillah* to some old person, either a Kazi or a Maulvi, and distribute sweetmeats. All Musalman boys are circumcised. Except the Shia or Daudi Bohoras among whom it takes place before the child is a year old all classes perform the ceremony after the *bismillah* and before the boy is six years old.

When a Musalman is at the point of death, a *Kuran* reader is called to recite the chapter that tells of death and of the glorious future of the believer; the creed and prayer for forgiveness are repeated, and a few

drops of honey or sugared water are dropped into the dying man's mouth. After death the eyes and mouth are closed, the body is laid on a wooden platform and carefully washed, among Shias with cold and among Sunnis with hot water. It is then perfumed and covered with a scented shroud of white cloth prepared immediately after the death by the Mulla. When the friends have taken the last look the body is laid on a bier, lifted on the shoulders of four men, and borne away amidst the wailing of the women and the men's cry of *La-illaha illallah*, 'There is no God but God'. Taking the bier to the ready dug grave, they lay the body with the head to the north leaning on the right side so that the face turns towards Mecca. Then placing clods of consecrated earth close to the body, the mourners fill the grave repeating the verse of the *Kuran*, "of earth we made you, to earth we return you, and from earth shall raise you on the resurrection day." Then retiring to the house of mourning and standing at the door they repeat a prayer for the soul of the dead, and all but near relations and friends, who stay to dine, go to their homes. On the morning of the third day a feast called *ziarat* is held. A large company of relations and friends meet in the mosque, and a portion of the *Kuran* is read ending with a prayer, that the merit of the act may pass to the soul of the dead.

PARSIS

Parsis belong to two main classes, early settlers who have apparently been in their present villages for over a thousand years, and new-comers whose connection with the district dates almost entirely from the beginning of the last century. Of the old settlers, those of Kalyan and Dahanu seem to have been separate from very early times. Of the new-comers there are three sets, large land-holders, Government servants, liquor-sellers, shop-keepers and railway and mill servants and workmen who are scattered over most of the district, but are chiefly found near railways and in the larger towns. The new-comers are found in Thane, Bandra and Kurla, and the old settlers at Kalyan, Tarapur, and in several parts of Dahanu. The Parsis of Thane town are older settlers. They came more than 200 years ago, soon after the British conquest of Salsette (1774). Most of them find occupation near their homes. Only a few go daily to Bombay.

The old settlers are the Parsis of Kalyan, and of Deheri, Nargol, Saroda, Sanjan and other small villages in Dahanu. Of the date of the Parsi settlement in these villages there is no record. Many of them seem to represent the original Parsi immigrants of more than 1,000 years back. They are husbandmen, and makers and sellers of moha

and palm-juice liquor. The well-to-do are generally both husbandmen and liquor-sellers, and the poor are drawers and sellers of palm-juice. Every village in the inland parts of Dahanu had its Parsi land-holder and liquor-sellers against whom frequent complaints from the Varlis, Thakurs and other early tribes were received that these men pressed labour for the cultivation of their fields. Their circumstances were somewhat depressed by the rise in the liquor tree cess and the stricter excise rules that were then brought in force.

Dress : Neither men nor women ever leave off the sacred shirt or girdle. The head also is always covered by man with a small skull-cap and by women with a white head-cloth. Some of the older and poorer men may be seen with the head shaven all but the top-knot and a full beard, wearing a carelessly wound white head-scarf, a short white cotton coat reaching to the thighs, loose cotton trousers pulled up to the calves, and native shoes or sandals. At home a Parsi of the older type lays aside his short coat and instead of his head-scarf wears a skull-cap of coloured cotton or silk. On great occasions, he puts on a roughly folded cloth turban in shape like a Bombay Parsi's or a Surat Vania's head-dress and a long white coat. The new-comers and some of the younger of the old settlers wear in-doors a skull-cap, a waist-coat, fine cotton trousers, and slippers without stockings. Out-of-doors they put on a well-folded turban of dark Musulipatam or Bandari cloth spotted with white, a white long-cloth or a silk or woollen coat, cotton or woollen trousers and stockings and boots. The hair is worn short ; they generally have whiskers and mustaches but almost always shave the chin. The rest of the old settlers, who form the bulk of the community, do not differ in their in-door dress from the half Europeanised Parsis. They wholly or partly shave the head, the older and poorer keeping a top-knot and having a lock on each temple, whiskers, and mustaches, but no beard. The turban does not differ from that worn by the Bombay Parsis ; only that among the poor it is not so neat or so well-folded. They generally wear a white long-cloth, coat, and sometimes a broad-cloth or other woollen coat made in native fashion and native shaped long-cloth or silk trousers. The well-to-do use light well-made native shoes with or without stockings, and in a few cases light boots. The poor use thick heavy native shoes without stockings.

In their dress the village women are less affected than the men by the fashions of Bombay and new-comer Parsis. In-doors and out-doors, their dress is the same. A white piece of cloth is wound round the head and the long hair gathered in knot behind. Over the sacred shirt and cord a tight-fitting sleeve-less bodice and coloured cotton trousers are worn, and a coloured cotton robe is wound round the body in Hindu fashion. On great occasions, and by a few of the rich on all occasions,

silk robes and trousers are worn instead of cotton. Slippers are worn out-of-doors and occasionally in the house. On high days their ornaments are a gold neck-lace, gold or silver bracelets and gold ear-rings, but, except that widows change them for gold or silver, their only everyday ornaments are glass bangles. Among the new-comers the women dress like Bombay Parsi women. The chief points of difference between their dress and the dress of the older settlers are that they wear the robe in loose folds so as to hide the trousers, that they always use silk instead of cotton, that a sleeved *polka* takes the place of a bodice, that slippers are worn in-doors and stockings and occasionally shoes out-of-doors.

After they are six months old, children are clothed in a frock, or *jabhan*, of cotton or silk according to the parents' circumstances. As they grow old, cotton or silk trousers are added, and after seven or nine when the initiation, or *navzor* ceremony has been performed, they are dressed like grown men and women. As far as they are able, parents are fond of decking their children in gold or silver finger rings, pearl ear-rings, and silver anklets.

Food: Poor Parsis fare simply. They have only two meals a day, one at noon, the other about eight in the evening. The first meal is of rice and pulse separate or mixed, curry, dry fish and pickles. The second meal is of rice or bread, pulse and dried or sometimes fresh fish. Before the present excise rules came into force palm-juice was much drunk at every meal. Since then the poorer classes have had to stint their supply. On great days they sometimes indulge in mutton or in fowls. As a rule they eat sitting on a cloth, from a copper or brass plate on which the whole dinner is piled. A few well-to-do families, in imitation of Bombay ways, use chairs and tables and eat off China plates.

Feasts or rather large dinners are given on three chief occasions, on the fourth day after a death or marriage, and at the religious national festivals called *gambars*. At all these dinners the guests are seated in rows on long strips of cloth about half a yard wide, spread in the streets or long verandas wherever they can find room. On the ground in front of each guest is laid a large plantain leaf, or plates made of banian or other leaves called *patravals*. The first course is rice or wheat bread, one or two vegetables, meat, fresh fish and pickles. The second course is rice and pulse washed down with palm-juice. Of animal food the Parsis eat, of quadrupeds, only the flesh of goats and sheep. Among birds they generally eat domestic fowls, but have no rule or feeling against eating other birds. They never smoke tobacco.

Customs: On a Thursday or Sunday in the seventh month of

a woman's first pregnancy she receives presents of dress from her husband's and her father's families. The husband's family prepares and distributes sweetmeats, and friends and relations are called to dinner. When her time draws near, the young wife goes to her father's house, where after the child is born she is treated with great care and lives apart in the lying-in room. Here she stays by herself for forty days, most carefully tended but not allowed to move or touch anything. When they hear that a child has been born, the husband's mother and some of his female relations come, bringing the young mother presents and giving money to the servants. For five days after the birth the mother is kept on light food and the child on sugar and water. On the fifth day, or by some on the tenth day, a rich meal, of which preparations of dry ginger and sweetmeats are the chief dishes, is sent to the husband's house. On the night of the fifth day, a blank piece of paper, an ink-stand, and a red pen are laid at the head of the young mother's bed for the goddess *Chhathi* or *Sathi* to write the child's destiny. Within twenty days of the birth presents are sent from the husband's house, chiefly money, to meet the charges to which his wife's family have been put, dresses for the child, and materials for a feast, spices, fowls, honey, and mutton. On the fortieth day after the birth of the child, the mother is bathed and purified, and allowed to move freely among the people of the house. The sacred shirt and cord she wore are buried, and all the furniture of the lying-in room except the iron bedstead and cradle is given to sweepers. The hour of birth is carefully noted, and on the fifth or other convenient day an astrologer, either a Brahman or a Parsi priest, is called and told the hour of the child's birth. On hearing the hour he makes some chalk drawings on a wooden board and tells the parents several names any of which the child may bear. The parents generally choose one of the astrologer's names. But if they are much set on some family-name, they sometimes call the child by it, though the astrologer may not have mentioned it. Before the child is six months old and generally before the end of the first forty days, an astrologer, either a Parsi priest or a Brahman, is asked to prepare a horoscope. This is a roll of paper about nine inches wide and ten feet long. It is kept with great care in a clothes box or press, and is consulted before a marriage is fixed when it is compared with the horoscope of the other party to the engagement. Before any important undertaking the horoscope is read over to see what are the owner's lucky days and times of life, and, if the owner falls seriously ill, the horoscope is examined to see whether he will get better or die. In the third or fifth month after the birth of her child the mother goes to her husband's house, bringing from her father dresses and toys for the child, a wooden cradle and bedding, and sugar-cakes.

Between the ages of seven and nine, both boys and girls are received into the Zoroastrian faith by being clothed with a sacred shirt, *sadra* and cord *kusti*. The ceremony is called the *navazot* or admission of a new believer. On the appointed day the house is set in order, the family are gaily dressed, relations and friends are called, and a dinner is made ready. About seven in the morning the child sits on a stone-slab and offers a prayer, thanking the Lord for the gift of life and for the beauty of the world. A pomegranate leaf is chewed and the juice, which like *hom* juice is believed to purify, is swallowed. Cow's urine is thrice sipped, a prayer for purification being offered between each sip. Next after repeating the confession of sin, the child is undressed, rubbed with cow's urine, and bathed with water. When the bath is over the child is brought into the hall of the house, where a company of relations and friends are seated on a large carpet. On a slightly-raised central seat the child is set dressed in trousers and cap with a muslin sheet thrown over its shoulders. The priests repeat the confession of sin, the child joining in the prayer, holding the sacred shirt in its left hand. When the confession is over, the senior priest draws near the child who stands and repeats the words, "The good, just, and true faith that has been sent by the Lord to His creatures is the faith which Zarthost, has brought. The religion is the religion of Zarthost, the religion of Ormazd given to Zarthost." As the child repeats these words the priest draws the shirt over its head. Then the child takes the sacred cord in both hands, and the priest holding its hands says "By the name of Lord Ormazd, the magnificent, the beautiful, the unseen among the unseen, Lord help us." After this is over, the priest repeats the sacred thread prayer in a loud voice, the child joining him. While the prayer is being recited, the sacred thread is wound round the child's waist who ends with the words, "Help me, O Lord ! help me, O Lord ! help me, O Lord ! I am of the Mazdiashni religion, the Mazdiashni religion taught by Zarthost." Then the child is again seated, the priest recites blessings and ends the ceremony by dropping on the child grains of rice, pomegranate seeds, and pieces of cocoanut.

Village Parsis often marry their children while still in their infancy. When two families agree in wishing their children to marry, they exchange their children's horoscopes, and the horoscopes are sent to an astrologer who decides whether the marriage is likely to be fortunate. No rule is laid down as to whether the proposal of marriage should come from the girl's. The first offer is generally made by the poorer family. If the stars are favourable, a priest is called to recite blessings on the boy and girl. About a week after some of the women of the boy's family, taking a suit of clothes for the girl and some curds and fish as emblems of good luck, go to her parent's house and present

the dress to the girl in front of a lighted lamp. This completes the betrothal which, though not legally, is practically binding. In return the girl's parents send a suit of clothes or a ring for the boy, and other presents of fish and various tokens of goodwill pass between the families. There is no fixed interval between the betrothal and the marriage. The marriage-day is fixed according to the convenience of the parents in consultation with an astrologer. Among the old settlers a booth or marriage hall is built, and some days before the wedding a booth-building ceremony is performed with songs. The marriage ceremonies begin three days before the wedding-day. On the third day before the wedding a pit is dug before the house, some silver and gold are thrown in, and a mango-twigg is planted. On the same day a suit of clothes and a large silver coin, are sent to the bride, who, until the marriage ceremonies are over, wears the coin round her neck. Towards evening the boy and girl, each in their own house, are seated on a low wooden stool in front of their house and bathed with fresh water by the women of the family. When bathed they are carried seated on the stool into the house, and with singing are rubbed with turmeric and rice or wheat flour and water. A cloth is thrown over them, and they are carried out seated on the stool, taken thrice round the mango-post, and brought back into the house. If the bridegroom and bride are grown up, instead of themselves their turban or robe is placed on the wooden stool and carried round the mango-post. Next day the same ceremony is repeated. The third day is given to religious rites in honour of the dead, and the spirits of departed ancestors are called to bless the marriage. The fourth day is the marriage-day. During these four days, if the families are rich, or only on the marriage-day if they are poor, large parties of friends and relations are called to dinner and supper. On the day before the feast the women of the family go to their female friends and ask them to join in the marriage ceremonies and feastings. The men are called by a priest, who with a long list of names goes from house to house and gives the invitation. Near relations and leading members of the community are visited and invited by the father or some members of the house.

At dawn on the morning of the wedding-day the women of both families sit in their houses on a carpet, singing gay songs describing the festivities and asking blessings. The bride and bridegroom, each at their own home, go through the same purifying ceremony as is performed at the time of investing with the sacred shirt and cord. At both houses carpets are laid and rows of benches set in the streets and verandas of neighbouring houses. About four in the afternoon the male guests, dressed in long white robes reaching to the feet and girt round the waist with a long piece of cloth, begin to come and take

their seats on the carpets and benches. While the guests are gathering a party of women come from the bride's to the bridegroom's house, one of them bearing in a large tray presents of clothes, and another carrying, one over the other, three pails filled with water and the top-most with a cocoanut in its mouth. This procession is called *sopara*. While they stand at the door of the house, the bridegroom's mother, or some other near relation waves a small tray filled with water and with a few grains of rice in it, over the head of the present-bringer, then throws the water at her feet and breaks an egg and a cocoanut. When they have entered, the bridegroom is called to dip his fingers in the wafer goblets, and while he is doing this, he drops in a rupee which belongs to the bride's sister. The women then give and receive presents and return to the bride's house. Between five and six in the evening the male guests who have met at the bridegroom's house, with native music and sometimes with music played on instruments, follow the bridegroom and the high priest to the bride's house. The bridegroom's clothes are all new, cloth turban, a long white robe falling to the ankle with a strip of white cloth about a foot broad wound many times round the waist, a shawl thrown over his left arm, a garland of flowers round his neck, a red mark on his fore-head, and a cocoanut in his right hand.

The female guests follow the men, the bridegroom's mother leading them holding in her hands a large brass or silver salver with a suit of clothes for the bride and the dowry jewels. At every turn of the street as they move along, to appease evil spirits, a cocoanut is waved round the bridegroom's head, broken and thrown away. On reaching the bride's house, the bridegroom is led to the door, the men of his party take their seats on carpets and benches, and the women stand behind the bridegroom at the door. At the threshold, as the bridegroom enters, one of the women of the house several times waves round his head a copper-brass plate with some rice and water in it, throws the contents under his feet, breaks an egg and a cocoanut, and welcomes him into the house asking him to set his right foot first. The bridegroom's father presents the bride with gold and silver ornaments, setting her on his lap if she is a child. After this the wedding ceremony begins. Bouquets and betel-nuts are handed to all the male guests. The women sit round on carpets, and in the centre the bride and bridegroom are seated on chairs facing each other. Their right hands are tied together with cotton thread and a cloth is held between them. One priest posts himself near the bride and another near the bridegroom. While reciting prayers they pass twisted thread seven times round the bride's and bridegroom's chairs. When this is over one of the priests drops benjamin on a fire censer, and as soon as this is done, the bride and bridegroom throw rice on each other. Whichever is

quickest in throwing the rice is supposed to be likely to rule in after-life, and their movements are closely watched by the guests and their sharpness rewarded by laughter and applause. When this is over, the bride and bridegroom are set side by side, two priests stand before them with a witness on each side holding brass plates full of rice. The two priests then pronounce the marriage blessing in Zend and Sanskrit, at each sentence throwing some rice on the bride's and bridegroom's heads. At intervals in the midst of the blessing the bridegroom and bride are asked in Persian, "Have you chosen her" and "Have you chosen him?". They answer in Persian, or, if they are too young their mothers answer for them. "Yes, I have.". When the marriage blessing is over the bride's sister, under the pretext of washing the bridegroom's feet with milk, steals one of his shoes and does not give it up till she is paid a rupee. The bride and bridegroom are next made to feed each other with some mouthfuls of a dish of rice, curd and sugar called *dahi kumlo*. They hunt for a ring which each in turn hides in the dish, and then gamble to show which of the two is quicker and luckier. When these amusements are over, the bridegroom leaving the bride at her father's house, starts for his own house, with his friends and a bright array of torches. A feast is given at both houses, and about midnight the bridegroom goes back with some friends to the bride's house and takes the bride with him to his own home. On the morning of the eighth day after the wedding the wife goes to her parents' house and returns in the evening with a large vessel filled with wheat and with a piece of silk tied over its mouth. From both houses, sweet bread, sweetmeats and other dishes are taken to the sea or the river-side and offered to the water-spirits. In the evening at both houses relations and friends are feasted.

At wedding feasts there are no chairs or tables. A strip of cloth about half a yard wide is spread on the ground and the guests take their places in row. The women and children dine first, and when they have dined the men are called. Before each guest a piece of plantain or other leaf is spread, and on the leaf the servants lay a portion of each dish. When all the dishes are served the guests begin to eat. While the male guests are eating, small copper cups of the size of wine glasses are filled with liquor and the toast "Glory to God" is drunk. As soon as this toast is drunk, the cups are re-filled, and generally four more toasts "The Bride and Bridegroom", "The Fire Temple", "Thè Host", and "The Guests" follow. Parsis marry only one wife. But when a wife or a husband dies, re-marriage is allowed and practised.

When a Parsi dies the body is washed, taken to the lowest floor, dressed, wrapped in old well-washed white clothes, and laid either at full length or with the legs folded near a corner of the front hall, on

one or two stone slabs, or on the bare floor if the floor is not of wood. If the body is laid on the floor a line is drawn round it to mark it off from the rest of the room and it is laid north and south, the feet towards the north. A lamp fed with clarified butter is kept burning at the head, and a priest repeats prayers, burning sandalwood and benjamin in a censer in front of the body. The body should be carried to the Tower of Silence as soon as possible after death, but never at night. Except in Thane town there are no professional bier-bearers. In other places the duty of carrying the dead falls in turn to the different laymen. When the Tower of Silence is at a distance, the body is sometimes carried in a bullock-cart, which immediately after is broken to pieces and buried near the Tower of Silence. In places within easy distance of a Tower of Silence, the bier-men bring an iron bier and lay it near the body. The bier is a plain iron bedstead without the canopy, standing about six inches from the ground, and, with two long side-rods to rest on the bearers' shoulders. The women of the family and their friends sit on carpets within doors a little away from the body, wailing and crying. The men and their friends sit outside and in the streets, in long rows on benches or carpets. A number of priests attend and say the prayers for the dead. Two of them, chosen for the occasion, stand at the threshold of door opposite the dead body and the bier, and begin reciting the *Ahunvat Gatha*, a portion of the *Yasna*. In the midst of this recitation at a certain part of the prayers, the two priests turn round, the attendants lay the body in the bier, and a dog is brought to look at the face of the dead and drive evil spirits away. Then the two priests again turn towards the body and begin to recite. When the reading is over the priests leave the door, and the wailing and crying which has ceased for the time, again begins. The male friends of the dead go to the door, bow and in token of respect for the dead raise their two hands from the floor to their heads. After the body is laid on the bier it is covered with a sheet from head to foot. The two attendants bring the bier out of the house, holding it low in their hands, and make it over to four more bearers outside, who like the two attendants are dressed in old well-washed white clothes. All the men present stand while the body is taken from the house and bow to it as it passes. The body is carried feet foremost, and after the body follow priests in their full white dress, and after the priests the friends of the dead. All walk in couples, each couple holding the ends of a handkerchief. At the Tower of Silence, which is generally some way from the town, the bier is set down at a little distance from the door. When all have again bowed to it, the bier is taken by the bearers into the Tower where the body is lifted from the bier and laid on the inner terrace of the Tower. The clothes are torn off and the body left to the vultures. After the body is laid in the Tower, before they return

to their homes each of the funeral party has a little cow's urine poured into the palm of his left hand and recites the *nerang* prayer. They wash their faces, hands and feet at a well near the Tower, and repeat the *kusti* prayer. They then go home. On reaching home they do not enter the house till they have again washed their faces, hands and feet, and again repeated the *kusti* prayer. They then enter the house and at once bathe and change their clothes. They cannot eat, work, or mix with their friends till they have bathed, and their clothes must be washed before they are again used.

Customs : About three in the afternoon of the third day a meeting takes place in the house of mourning. The guests seat themselves on benches, chairs and carpets, and recite prayers of repentance on behalf of the dead. While the guests are praying, two priests if the dead was married and one priest if he was unmarried, lay several trays of flowers and one or two censers in front of the spot where the body was laid on the first day, and standing opposite the censer and flowers, recite prayers. When the prayers are over, the son or the adopted son of the deceased bows before the high priest who makes him promise to perform all religious rites for the dead. The friends of the deceased then read a list of charitable contributions in memory of the dead. The ceremony ends with the *uthamna*, or rising from mourning. The flowers in the trays are handed round among the people who are sprinkled with rose-water and retire. Next morning before dawn, white clothes, cooking and drinking vessels, fruit and wheat cakes called *darun* are consecrated to the dead in the fire temple. After this is over, about four in the morning, the grief-raising ceremony is repeated.

For three days after a death no food is cooked in the house of mourning. What food is required is sent cooked by some near relation. During these three days none of the relations of the dead, wherever they may be, eat flesh. For the first ten days and sometimes for longer, female friends and relations come to the house of mourning from morning to noon and sit in the hall where they are received by the women of the house. So also the men call at the house for a few minutes in the morning and evening for the first three days. They are received by the men of the house and seated on the veranda, or near the veranda on carpets, benches or chairs.

On the fourth day a feast is held especially for the priests, and friends are also invited to it. The tenth and thirtieth day after death, the death-day in each month for the first year, and every yearly death-day have their special ceremonies.

At the end of every year some days are devoted to ceremonies for the dead. In a well-cleaned and white-washed room a platform is raised, on which copper or silver and, in the case of the poor, clay vessels are set filled with water and decked with flowers. The water is

changed at least four times during the holidays which last for eighteen days. Prayers are said in front of the water-pots two or three times a day. These observances are called the ceremonies for the departed souls, *muktads*. The last day of the year and the new year's day, which are both days of prayer and rejoicing, fall about the middle of these holidays.

The Zoroastrian writings are composed in two languages, Zend and Pehlevi. Except a few scholars, no Parsi, either layman or priest, knows either Zend or Pehlevi. The leading beliefs which as a Zoroastrian the ordinary Parsi holds, are the existence of one God, Ahuramazd, the creator of the universe, the giver of good, and the hearer and answerer of prayer. Next to Ahuramazd, the name most familiar to a Parsi is that of Hereman, *Angro-mainus*, or Satan, to whom he traces every evil and misfortune that happens to him and every evil thought and evil passion that rises in his mind. He thinks of Ahuramazd and Hereman as hostile powers and in his prayers he often repeats the words, "I praise and honour Ahuramazd; I smite *Angro-Mainus*." He believes that every man has an immortal soul which after death passes either to a place of reward, *behesht*, or of punishment, *duzakh*. The reward or punishment of the soul depends on its conduct in life. At the same time the due performance by its friends of certain rites helps the soul of the dead to reach the abode of happiness. He believes in good angels who do the behest of God and watch over fire, water, and earth. He venerates fire and water, and the sun, moon and stars which Ahuramazd has made. He believes in evil spirits who are in league with and who obey Hereman. He believes in Zoroaster as the Prophet who brought the religion from Ahuramazad. He believes that when the world has become over-burdened with evil, Soshios, son of Zarthost, will be born and destroy evil, purify the world, and make the Mazdiashni religion supreme. He calls his religion *Mazdiashni din*, or *Mazdiashni Zarthosti din*, that is the religion of the Mazda or Omniscient, or the religion of Mazda through Zarthost. His code of morals is contained in two sets of three words, the one set, *humata*, *hukhta* and *hyrasta*, holy mind, holy speech and holy deeds, to be praised and practised, pleasing to God, the path to heaven; the other set, *dushmata*, *duzakhhta* and *duzuvarsta*, evil mind, evil speech and evil deeds, to be blamed and shunned, hateful to God, the path to hell.

Except the first day of the month which bears the name of God, Ahuramazd, all the days of the month are allotted to angels and bear their names. The months are also named after angels and the day of the month that has the same name as the month is a holiday. Six times in the year *gambars* or general feasts are held. Each of these feasts, which originally marked the different seasons of the year, lasts for five

days. High and low are expected to share in them in perfect equality. Besides these, there are eighteen *muktad* holidays, including the five days of the last and most important of the *gambars*. There is no fasting or penance ; all holidays are spent in feasting, rejoicings and prayers.

A Parsi must always keep his head and feet covered, must never move without the sacred shirt and cord, must never smoke, must wash his hand whenever he puts it in his mouth, if he eats from the same dish with two or three others he must not let his fingers pass into his mouth but fling the morsel in, if the rim of a goblet is touched by the lips in drinking it should be washed before it is again used. He must return thanks to God when he takes his meals and keep silence. After his head is shaved he must bathe before he touches anything. In practice Parsis neglect many of these rules, but they know they are laid down in their religion. When sneezing the old generally say, " Broken be Hereman ", apparently believing that the spasm of breath or soul in sneezing is the work of an evil spirit. Though they know they are contrary to their religion, village Parsis have adopted many of the practices of their Hindu, Musalman and Christian neighbours. They offer vows and sacrifices of goats and fowls to the goddess of small-pox and a few carry oil to Hanuman, the Hindu village guardian. Some reverence the shrines of Musalman saints, offer vows and make presents to them, and a few offer vows and presents to the Virgin Mary and to Christian saints in the catholic village churches.

The priests have the right to perform all religious ceremonies. Priestship is hereditary. The priests or *mobeds* form a separate class. They have a special status in the performance of rituals. The whole Thane priesthood are descended from Udvad and Navsari families. Over the priests of certain districts or divisions is a High Priest, or *dastur*, whose office is hereditary and always passes to the eldest son. The Thane district is divided into three ecclesiastical circles, one under the Thane High Priest, one under the Kalyan High Priest, and one in the north under the High Priest of Udvada in the Surat district. The High Priest does not make periodical visitations through his charge, but he hears and settles any complaint against his priests that are lodged before him.

The High Priest and priests differ from other Parsis in never shaving the head or face, and, except shoes, in wearing no article of dress that is not white. The laymen pay them certain fees for the rites and ceremonies they perform. They are also paid for offering prayers at the fire-temple and in private houses. When laymen go to the fire-temple they take some sandalwood and money, which are handed to the priest who burns the wood on the fire and takes the money in payment of his prayers.

The Parsis believe in ghosts and in magic. They attribute many diseases to possession by evil spirits and employ Musalman, Hindu and Parsi magicians to drive out the spirit and to cure the effects of the evil eye. Women especially spend large sums in buying magic amulets which they wear round their necks or in their hair, to win or to keep the favour of their husband or lover. They believe in the magical practice called *muth*, under which the object of dislike sickens or dies.

BENE-ISRAELS

Bene-Israels, returned as numbering 775 souls in 1872 were found in Panvel and Karjat now in Kolaba district, Salsette, Bassein, Bhiwandi, and Kalyan. They are also known as Yahudis and Telis or oil-men. They are believed to have come into the district from Alibag in Kolaba about two hundred years ago. They are divided into white (*gore*), and black (*kale*), the former probably the descendants of the original immigrants and the latter of converts. The two classes neither eat together nor inter-marry. They are dark and rather tall and strong. Except a tuft over each ear, they shave the head and wear the moustache and short beards. The women are generally good-looking, and like Hindu women wear the hair tied behind the head in a knot. The men are orderly and hard-working. They are husband-men, oil-pressers, soldiers, hospital assistants, shop-keepers, cart-drivers and military pensioners. Their home-tongue is Marathi, spoken correctly by a few and very roughly by most. Their houses are like those of middle class Hindus, with brick or wattle and daub walls and tile or thatch roofs. They have clay and copper vessels, wooden stools, grind stones, and a hand mill. The only special article is a box fixed to the upper part of the right door post. This contains a piece of parchment with a verse from the Old Testament, so placed that through a hole the word Almighty can be read from the outside. Both in going out and in coming in the members of the household touch this box with their first two right fingers and then kiss them. They eat rice, millet, pulse, vegetables, oil, butter, and salt, and with certain restrictions, fish, flesh and fowls. They drink water, milk, tea, and coffee. They eat twice a day, in the morning before ten and in the evening before nine. Men and women eat separately, the men first; children sometimes eat with their fathers and sometimes with their mothers. The men dress in a cap or Maratha turban, a coat, trousers or a waist-cloth, and Hindu shoes or sandals. They wear gold ear-rings hanging from the lobes of their ears. The women wear a robe and bodice with sleeves and back. Their jewellery consists of head, ear, neck, and arm ornaments. Their widows are not allowed to wear glass

bracelets, or the marriage string *mangalsutra* or *lachya*. The Bene-Israelis worship one God and have no images. In their synagogues they have manuscript copies of the five books of Moses written on parchment. They have two synagogues, or *masjids*, one in Panvel in Kolaba district and the other in Thane. Though extravagant on ceremonial occasions, the Bene-Israelis are hard-working and well-to-do. There are no professional beggars among them and most of them send their boys to school.

RELIGION

Hinduism : There is really no such a thing as Hindu religion in the sense that Islam is a religion or Christianity is a religion, because there is not a single prophet like Mahomed or a Messiah like Christ for the Hindus, nor there is a single scripture like the *Koran* or the *Bible* that Hindus hold as supreme. Hinduism, if it may be so called, is a collection and mass of many religious books, many religious teachers and many grades of faiths, beliefs and convictions. The Hindus hold the *Vedas*, the *Upanishads* and the *Geeta* in high reverence as they do the most recent compositions of Tukaram and Tulsidas. They revere many saints and worship many deities. Their religious philosophy includes faith in *Advaita*, *Dvaita*, *Vishishtadvaita*, idol-worship and propitiation of spirits and natural phenomena.

As far as the Thane district is concerned while the Brahmans are believers in *Advaita* and worship incarnations of Vishnu like Rama and Krishna, Shiva and Devi, Ganapati and Maruti, the others are worshippers of spirits and deities, trees and stones and even some animals. But this again shows that they are essentially *Advaitis*, believing in one supreme being and the whole universe as manifestations thereof. This has been well demonstrated in the descriptions of the various castes and sub-castes.

Christianity : Next to the Hindus, the most numerous group of people is that of the followers of Christianity. All Christians believe in God, in Jesus Christ the Saviour and founder of Christianity and in the *Bible*. Though the principles of Christianity are the same for all churches, they differ among themselves mainly in their (1) methods of administration, (2) sources of their beliefs and doctrines, (3) dogmas of faith and (4) rituals. The Catholics, for instance, who form the bulk of the Christian population in Thane have a distinctive set of religious beliefs which distinguishes them from the members of other Christian denominations.

They acknowledge the Pope, Bishop of Rome, as the head of the Church to whom they owe allegiance and obedience in doctrinal and moral matters. Though the *Bible* is for each of them the inspiration of

their religious life, it is not left to each one's individual intellect to interpret the *Bible*. All Catholics accept the *Bible* as it is interpreted by the Magistracy of the Church and Tradition. By Magistracy of the Church is meant the Pope and the Bishops authoritatively and officially interpreting the *Bible* and stating the doctrine of the Catholic Church. By Tradition is understood the doctrine as it has been handed down from the early Church, generation after generation, through the Fathers and Doctors of the Church.

For the Catholics, the Holy Sacrifice of the Mass is the centre of religious worship. At the end of the Holy Mass, the Catholic priest receives the Sacred body and blood of Christ under the species of bread and wine. Such Catholic lay people as are present at the Holy Mass and are free from mortal sin receive Christ under the species of bread only. This is known as Holy Communion which for Catholics is not simply a memorial service, but in fact a true reception of Christ's body under the sacramental species. Catholics believe in auricular confession. This means that the normal way of a Catholic to get remission of his sins is to go to the Catholic priest, confess his sins and feel and express contrition for them and get absolution from them from the priest, who absolves the penitent in the name of God.

Muhammedanism : The composition of the Muslim population in Thane has been described in detail in the account of Muslims in the old GAZETTEER. They are broadly divided between *Shias* and *Sunnis*. The main difference between the two is that the former think that according to the *Koran*, the caliphate or the spiritual leadership of the Muslims had to descend in the Prophet's family and therefore it necessarily devolved on the Lady Fatimah, the only one of his children who survived him and on her husband Ali, the fourth caliph. They therefore reject the three caliphs who came after Muhammad, viz., Abu Bakar, Umar and Usman. After Ali, they also hold that the caliphate descended in his family on his two sons Hassan and Hussain. The central incident of the *Shia* faith is the slaughter of Hussain, the son of Ali, with his family on the plain of Karbala in Persia on the 10th day of the month of *Muhurrum*, in the 16th year of the *Hijra* or A. D. 680. This martyrdom of Hussain and his family at Karbala is celebrated annually for the first ten days of the month of *Muhurram* by the *Shias*. They also reject the four great schools of tradition of the *Sunnis* and have separate traditional authorities of their own. They count the month to begin from the fading of the moon instead of the new moon, pray three instead of five times a day and while praying hold their hands open by their sides instead of folding them below the breast.

The five standard observances of the Muhammedan religion are :
(1) *Kalima* or creed which consists only in the sentence, " There is but

one God and Muhammad is His Prophet". This is frequently on the lips of the devout Muslims. (2) *Sala* or the five daily prayers the timings for them being morning before sun-rise ; mid-day after the Sun has begun to decline ; afternoon about 4 ; evening immediately after sun-set and after the night has closed in. These prayers are repeated in Arabic and before saying the prayers the face, hands and feet should be washed and correctly speaking the teeth also should be cleaned. (3) *Rosa* or the thirty-day fast of *Ramzan*, the ninth month of the Muslim year. During its continuance no food or water must be taken between sun-rise and sun-set and betel-leaf, tobacco and conjugal inter-course must be abjured for the whole period. (4) *Zakat*, legal alms consisting of money, cattle, grain, fruit and merchandise are to be given annually to pilgrims desiring to go to Mecca but have not the means to do so ; to poor pilgrims and other beggars ; debtors who have not the means to discharge their debts, champions of the cause of God and proselytes to Islam. (5) The *Haj* or pilgrimage to Mecca is incumbent on every Muslim, man or woman, who has sufficient means to meet the expenses of the journey and to maintain their families at home during their absence.

RITUALS AND CEREMONIES

Hindus : For the Hindu, religion plays an important part in the context of his family-life as also at every stage of the individual's life. Life for him is a round of rituals and ceremonies and most of the Hindu customs and traditions consist of ritualistic practices related to various religious observances known as *samskaras* or sacraments. According to the Hindu *dharmashastra*, the individual has to pass through many *samskaras* which are really *sharira-samskaras* for these are intended to sanctify the body, *sharira*, beginning from the moment the foetus is laid (*garbhadhana*) to the death (*antyeshti*) of a person. The number of these *samskaras* differs according to different authorities and some say there are sixteen which are compulsory (*nitya*) and twenty-four which are optional (*naimityika*). These are usually conducted under the direction of Brahman priests who on their part say they use *Vedic* texts for Brahmans and *Puranic* texts for others. Of late even these sixteen sacraments are reduced to half a dozen in most of the Hindu communities and are observed in respect of birth, thread-girding, marriage, pregnancy and death only. A *samskara* is usually preceded by a symbolic sacrifice (*homa*).

Pregnancy and child-birth : The *garbhadhana* or foetus-laying ceremony which is prescribed to be performed at the consummation of marriage derived social significance when child marriages were current. At present the ritual is symbolically included in the marriage ceremony

without any bustle. The *grihyasutras* have prescribed for the benefit of the pregnant woman a number of observances of magico-religious nature and believers in the efficacy of *Vedic* rites follow them to varying extent. The *Pumsavana Samskara* or the male-making rite may be performed during the third month of a woman's pregnancy so that the deities governing the sex of the fœtus would be propitiated and a male issue assured.

The *jatakarma* ceremony may be performed at the birth of the child. Here the father has to touch and smell the child, utter benedictory *mantras* into its ears expressing his wish that it may be endowed with long life and intelligence. However, the first popular ritual in an infant's life is the *Panchvi* and *Shashthi* i.e., the ritual observed on the fifth and sixth day after birth. On the fifth day, a configuration of a betel-nut, rice, flowers, sandal paste and a sickle or a sword arranged on a *pat* in the lying-in room in the name of *Panchvi* or Mother fifth is bowed to by the mother with a prayer to save the child from the attacks of evil spirits. On the sixth day, a blank sheet of paper and a reed pen and an ink-stand are set on a stool and worshipped as *Sarvi* or Mother Sixth and a few friends are feasted. Even though these worships have no *Vedic* basis as a *Samskara* they are observed even among the Brahmins and other advanced class Hindus.

Naming ceremony: The *namadheya* rite is performed on the tenth or twelfth day after the birth of a child when it is given a name. Popularly, this ceremony is called *Barse* and its observance varies in the various communities. In higher castes, a Brahmin is usually called in and he proposes certain names considered auspicious in view of the astrological circumstances of child-birth. The family selects one of these names and sometimes more are given, one of which is kept for common use and the other for official and ceremonial use. The horoscope is usually cast and read, the name proclaimed, *pansupari* and sweets distributed and drums beaten. Some hold a ceremonial cradling in the evening in which the women predominate. On this day, a child receives gifts from relatives in the form of clothes, trinkets and cash.

The *Karnavedha*, piercing of the ear-lobes, may take place the same morning or may be postponed to the sixth or twelfth month. If the child is a boy and is subject to a vow, his right nostril is bored and a gold-ring put into it. The twelfth day is also important, because on that day the mother who was considered uncleaned since child-birth is proclaimed clean. The confinement room is thoroughly cleaned and this is the day on which menfolk and others are allowed to enter it to see the mother and the child.

Annaprashana: Among a section of Hindus a ceremony called *annaprashana* celebrates the first feeding of the child. It takes place

when the child is six months old. An auspicious day is chosen and relatives invited who come with gifts for the child. Food which is usually *khir*, i.e., rice boiled with milk and sugar is put in the mouth of the child with a gold-ring or silver spoon. The maternal uncle usually officiates at this function. In common parlance this ceremony is known as *ushtavan*.

Javal: Then comes the hair-cutting ceremony in the case of boys. It is called *javal*, the Sanskrit word for the *samskara* being *chudakarma*. It is the first tonsure of the hair. Lately, this is nominally performed at the time of the *upanayana*.

Thread-girding: The thread-girding ceremony or *munja* as it is popularly known is prescribed for all *savarna* Hindus, i.e. those who claim to be Brahmans, Kshatriyas and Vaishyas. The ceremony is also called *upanayana* or *vratabandha*. Until this is performed a *savarna* child does not become a *dwija*, i.e. twice-born.

A boy (*kumara*) undergoes *upanayana* at the age of eight years in the case of a Brahmana, ten in the case of Kshatriya and twelve in the case of a Vaishya. There are also rules regarding the *muhurtas*, auspicious times, to be determined according to the birth stars of the boy. The ceremony always takes place between morning and noon, never after mid-day.

Preparations for this ceremony begin a few days before the thread-girding day. Drummers and pipers who are to play at the ceremony are engaged. A booth is built in which a *bahule* (decorated platform) is constructed. Invitations are sent to distant places to relations and friends. Near relations and close friends ask the boy and his parents to *Kelvan*, a congratulatory feast and presents are given. A formal invitation (*akshat*) ceremony is held a day or two before the thread-girding when the local temple of Ganapati is visited and the deity is prayed to be present at the ceremony. Personal invitations are given to local friends and relatives.

Early in the morning on the appointed day, the musicians start playing on the drum and pipe. The *ghana* ceremony is gone through with the help of not less than five *suvasinis*. Prior to the *upanayana* ceremony proper, the usual propitiatory rites are gone through with the same procedural details as before the performance of any auspicious *samskara*. These are *Ganapati* and *Matrikapujan* (worship of Ganapati and Matrika deities), *punyahavachan* (the holy day blessing) and *Devakapratishtha* (installation of *devaka*). The ceremony of *chaula*, shaving the boy's head, is gone through if it was not already performed in childhood. The boy is then bathed and led to the dining hall. At least eight boys called *batus*, girt with the sacred thread but not married, are seated in a row and served a lunch. While they eat, the

boy's mother sitting in front of the *batus* sets her son on her lap and feeds him and herself eats from the same plate. The ceremony is known as *matribhojana*. It is the last time that the boy and his mother eat from the same plate. The boy is then taken to the barber who takes off all the locks that were left on his head except the top-knot. The boy is then bathed and made ready for the *upanayana* ceremony.

The boy and his parents enter the booth and take their seats on the three *pats* (low wooden stools) arranged on the *bahule*. The father begins the ceremony by distributing some cash to make amends for the neglect in failing to perform the *samskaras* at the proper time. The father then sits on the *pat* with his face turned to the east while the boy stands before him facing the west and the priests hold between them a curtain marked with a *swastika* in vermillion. Priests recite *mangalashthakas* (holy verses) and the guests throw *akshatas* (rice besmeared with *kumkum*) at the boy and his father. At the proper *muhurta* (lucky moment) the priests stop chanting, the musicians re-double their notes, the curtain is pulled to the north and the boy lays his head at his father's feet. The father blesses him and seats him on his right. The guests are then regaled with *pansupari*, perfume and rose-water and sweet drink. It is now getting customary to make some present to the boy on this occasion.

The *upanayana* ritual now begins. A *vedi* (earthen altar) is traced in front of the father, blades of *darbha* (sacred grass) are spread over it and a *homa*, a sacrificial fire, is kindled on it. Offerings of *ajya* (ghee), sesamum and seven kinds of *samidhas* (sacred fuel sticks) are made on the sacrificial fire. With folded hands, the boy then approaches the *Acharya*, head-priest with a request to make him a *Brahmachari*, a *vedic* student. The preceptor grants his request. He daubs a cotton string in oil and turmeric, ties it round the boy's waist, and a white one round his shoulders. Another cotton string daubed with oil and turmeric and a bit of deer skin passed into it is hung on the boy's left shoulder. He hands over to him a consecrated *yajnopavita* (sacred thread) and a *danda* (staff) of *palasa*. The boy is made to pass between the sacrificial fire and his father and sip three *achamanas* and repeat sacred texts. He then goes back between the fire and his father and takes his seat. The preceptor then gives the boy a coconut and taking him by the hand goes out of the booth and both make obeisance to the sun. On their return to the seats, the preceptor takes the boy's right hand and asks him to state his name and he says he is his preceptor's *Brahmachari*, the preceptor lets go the boy's hand, takes him round the sacrificial fire and seating him by his side, drops nine offerings into the fire. He then says to the boy, "You have now become a *Brahmachari*; you must deserve religious exactness; you must sip *achamanas* before taking food; you must not sleep during the day; you

must control your speech; you must keep alight the sacred fire and thoroughly cleanse your mouth after taking food." The boy then sits to the north of the sacrificial fire, bows to the preceptor and begs to be initiated into the mysteries of the sacred verse; the boy and the preceptor or the boy's father are covered with a shawl and the preceptor thrice whispers the sacred *gayatri* into the boy's right ear, first syllable by syllable, next phrase by phrase and then the whole verse. The shawl is taken away and all return to their seats and give blessings to the *Vedic* student and the father.

The preceptor then makes four offerings of *samidhas* to the Fire and then the boy makes an offering of one *samidha* and wipes off his face thrice with words purporting, "I anoint myself with lustre and may Agni and Indra bestow on me insight, offspring and vigour." The preceptor concludes the sacrifice with the final oblations and sprinkles sacred water over the head of the boy and in all directions. Money presents are then made to priests who bless the *Brahmachari* and his father.

At noon the priest teaches the boy to recite the *madhyanha sandhya* (mid-day prayer) and in the evening the *sayam sandhya* (evening prayer). The ceremony of *bhikshavala* (begging alms) is then held. The boy and his relatives go in a procession to the temple of Ganapati with music and on return, the boy is seated near the altar. To his mother who approaches him there, the boy says, "*Om, Bhavati bhiksham dehi*" (Lady, be pleased to give alms) and holds a cloth wallet before her. The mother blesses him and puts in his wallet some sweet balls, rice and a gold or silver coin. Other married ladies, mostly relatives, follow suit to each of whom he addresses in the same manner and each of them presents him with sweet balls and money. The contents of the wallet go to the priest, part of which he gives to the boy and he returns the money also to the boy.

The whole of the *upanayana* ceremony is at present wound up in a day. The last religious rite of the *upanayana* ceremony is *medha-janana*. A small square earthen mound is raised and a branch of the *palasa* tree is planted in it. The boy pours water round the plant and prays Medha, the goddess of mind, to give him knowledge and wealth. The boy is now a complete *Brahmachari*, i.e., an unwed *vedic* student and from now on for twelve years he is to learn the *Vedas* and acquire other knowledge at the feet of his *guru* and on completion of this period undergo the *samavartana* ceremony. But the present practice, for centuries, is that the *samavartana* or *sodmunja* as it is called follows immediately or in a few days after *upanayana*. The boy makes over to the priest the loin-cloth, the staff, the deer skin etc., and puts on new clothes, a pair of shoes and takes an umbrella and sets out as if on a journey to Banaras. The pretension is that even after coming back after completing studies, when he is desirous to marry and enter

into the *grihashthashrama*, nobody offers a girl in marriage to him and therefore he is leaving for Banaras. Usually his maternal uncle or some one else promises to give his daughter to him in marriage and he gives up his plan. The *upanayana* is now only a symbolic representation of the initiation of a boy into student-hood and completion of that state and it is more an occasion for a social gathering for friends and relatives.

Death rites: Hindus who follow *Vedic* or *Puranic* rites usually cremate their dead. What some castes and tribals do has been already explained while dealing with the various caste practices. *Sanyasis* get a ceremonial burial called *samadhi*. Infants who have not cut their teeth and those who die of small-pox or leprosy are buried. Where fuel is scarce, burial is resorted to, but usually the Hindus burn their dead. The bones and ashes of the dead are generally thrown into a river or sea. Sometimes a portion of the same is preserved for being consigned to the Ganga.

When a person is on the point of death, the nearest kin sits close to him and comforts him, assuring him that his family would be well cared for. A small piece of gold is laid in his mouth and few drops of Ganga water are poured into it. When life is extinct, the body is removed from the bed or cot and laid on the ground with head to the north and feet to the south. The ground is washed with cow-dung, holy water is sprinkled on it and a wreath of *tulshi* leaves is placed round the neck. The chief mourner has to undergo a purificatory bath while the priest chants some *mantras*. If the deceased is an ascendant, the chief mourner and other mourners have to shave their heads, except the top-knot and moustaches. Having done this he offers oblations of rice (*pindas*) in honour of the dead. The dead body is bathed and wrapped up in a new *dhori* or *lugade*, according as the dead person is man or woman. If the deceased is a female, with her husband living, she is arrayed in a yellow cloth, decked with flowers rubbed with turmeric paste and *kumkum*-marks are put on her brow. These honours are not shown to a widow. All the relations present, men and women bow to the dead. Finally, the corpse is put on a ladder-like bier of a bamboo and borne by four persons on their shoulders to the cremation-ground, the priest and the chief mourner (who holds the sacred fire for burning the dead body) walking in front of the bier. Women do not accompany the funeral procession. All persons attending the procession are bare-headed. With the live charcoal brought along a fire called *mantragani* is prepared, the corpse is laid on the pyre and the chief mourner then ignites it with the fire. Immediately after the body is burnt, the chief mourner goes round the pyre thrice with trickling water pot in which the fire was brought and finally throws backward the pot over the

shoulder spilling the water over the ashes, to cool the spirit of the dead which has been heated by the fire. After this he pours water mixed with sesamum and the rest of the mourners follow suit. The party then returns when the body is completely consumed. During the first ten days, all persons belonging to the *gotra* of the deceased observe mourning (*sutak*).

Obsequies: The *shraddha* and funeral obsequies are the only ceremonies performed for the salvation of the ancestors. A special ceremony called *Narayan Bali* may be performed for those who die by accident, but in the case of one dying without an issue, no departure from the ordinary rites takes place. The funeral obsequies are performed during the first thirteen days after death. Oblations of rice are offered everyday, in consequence of which the soul of the deceased is supposed to attain a spiritual body, limb by limb, till on the thirteenth day it is enabled to start on its further journey. Oblations are also offered on the 27th day and sometimes thereafter on the day of the death once in every month for a year of which the six-monthly and the *bharni* oblations, i.e. the *shraddha* performed on the fifth of the dark half of the month of *Bhadrapad* are essential; and after a year has elapsed, the oblations on the first anniversary day are celebrated with great solemnity. The annual *shraddha* is performed on the day corresponding to the day of death in the latter half of the month of *Bhadrapad*. Where the deceased's family can afford it, a *shraddha* is also performed on the anniversary of death which is known as *Kshayatithi*. While performing the *shraddha* of one's deceased father, offerings are also made to other ancestors and to deceased collaterals. Women dying during the life-time of their husbands have special oblations offered to them during their husbands' life-time. This takes place on the ninth day of *pitri-paksha* and is known as the *avidhava-navami* day.

The practices followed by some castes among Hindus and the Muslims, Christians and Parsees have been detailed in their accounts previously.

MARRIAGE AND MORALS

Hindus: Hindu *dharmashastra* considers that it is obligatory on every normal person to enter into wedlock as according to it *vivaha* is one of the *sharira-samskaras*, i.e., sacraments sanctifying the body, through which every man and woman must pass at the proper age and time. But though marriage was thus almost universally prescribed for all Hindus, the institution as such was hedged in with several rules and restrictions which fall under two main heads, viz., endogamy and exogamy.

So, a Hindu could not marry outside his caste or particular sub-caste which according to social custom was considered endogamous. He was confined for the choice of a wife within this group. The caste or sub-caste forms the outer circle within which a man was obliged to marry according to custom that was time-honoured. Outside it, are a set of further sub-divisions which prohibited the marriage of persons related through males. These are called exogamous groups or class and their names among the so called higher castes is *gotra*. The story is that all persons belonging to the same *gotra* are descended from the same male ancestor and so related. The system of exogamous *gotra*, based as it is on descent from the males, sufficed to prevent the union of persons nearly related on the father's side but not those on the mother's side. They were, therefore, regulated by another set of rules. In the twice-born castes marriage was usually avoided between persons related on the woman's side within three or sometimes five degrees. The marriage between children of two sisters was frowned upon but those of a brother and sister was sedulously sought among some communities. The marriages of two sisters with two brothers rarely took place but was not objected to but usually elder sisters or brothers are married before younger ones. There was a general rule that a man did not marry more than one wife except among the cultivating class or the aborigines.

Hypergamy: Hypergamy relates to the social rule by which a woman should be married to a man who is either her equal or superior in rank. Men of a higher sub-caste of a caste often took wives from the lower ones but will not give their daughters in return. Aristocratic and rich men often choose brides from lower strata of society chiefly for their looks and they are thus raised in social status. Families of lower sub-castes consider the marriage of their daughters into a higher group an honour and may even spend lavishly for this desideratum.

Polygyny: Hinduism did not frown upon polygyny which is a better word than polygamy for describing the state of having more than one wife at a time. This used to be done, often with the consent of the former wife if she was barren, progeny being the objective. The *smritis* not only prescribed that a man who has entered *grihashthashrama* must not remain single and should even take another wife without delay to keep up religious rites. Among the lower classes, more wives meant willing and handy workers without having to pay wages for work. In recent years, the spread of education and assimilation of modern liberal ideas have made almost all communities monogamous. The Hindu Marriage Act of 1955 has now completely reformed the law relating to Hindu marriage all over India and has made monogamy compulsory among all classes of Hindus.

Widow marriage and divorce: *Widow marriage was once strictly prohibited among the Brahmans. The reasoning behind this prohibition was that marriage was the only sacrament for a woman and she could go through it only once. Even now, though legally permissible, widow marriages are not very current among the higher Hindu communities. Only a minority of the most advanced would think nothing objectionable in it, but such people were excluded from their caste. Similarly divorce was not once recognised among them. But among the so called lower castes both were current as a matter of usage and the courts recognised them as legal.

Dowry: Hindu religious books recognise eight forms of marriage. But of them only two are in vogue at present. They are the *Brahma* and *Asura*. Conforming with the former, *hunda*, i.e., property which a wife brings to her husband is paid by the bride's parents to the bridegroom among higher castes. Among lower castes, the bride's parents usually take *dej*, i.e., bride-price, thereby conforming with the *Asura* form. The monetary aspect in the settlement of a marriage may take various forms. It may be a *salankrita kanyadan* in which the bride's father makes over the bride to the groom, by bedecking her with ornaments, besides spending on all other incidental functions. In some settlements, the parties of the bride and the bridegroom bear their own expenses and stand each other's *manpan*. It may be mentioned here that the *hunda* demanded from the bride's father is under the guise of *varadakshina*, i.e., the money the donee receives from the donor to fulfil the purpose of a *dan*, i.e. gift. In communities where for some reason or other, the supply of marriageable boys falls short of the demand, dowry forms a very important consideration in a marriage settlement. Education only lends appreciation to the boy's value in the matrimonial market and scarcity of suitable grooms enforces spinsterhood on a large number of eligible girls whose parents or guardians are not able to meet the *hunda* demands. Examples the other way about are also found. Boys remain unmarried in communities where because of the scarcity of marriageable girls, large sums in the shape of purchase money are demanded by fathers, besides presents to the bride in the shape of ornaments and clothes.

Enactments: Social usage in relation to Hindu marriage has been considerably affected by various legal enactments passed, right from 1833 when the regulation prohibiting *sati* was promulgated. A common form of civil marriage for all communities in India was provided by the Special Marriage Act III of 1872 which made it possible for an Indian of whatever caste or creed to enter into a valid marriage with a person belonging to any caste or creed, provided the parties registered the contract of marriage, declaring *inter alia* that they did not belong to any religion. This Act was amended by Act XXX of 1923 making

it possible for Hindus, Buddhists, Sikhs and Jains (but not Christians, Jews, Parsees and Muslims) to declare their religion and yet get their marriage registered.

The Child Marriage Act XIX of 1929, as amended by Act 19 of 1946, prohibited marriages of boys under 18 years of age and girls under 14 years of age. The Hindu Marriage Disabilities Removal Act XXVIII of 1946 validated marriages between parties belonging to the same *gotra* or belonging to different sub-divisions of the same caste. The Hindu Marriage Act, 1955, has abrogated and modified all the past laws. It has made Hindu marriage strictly adult and monogamous. It has done away with all caste and *gotra* restrictions with hitherto limited the field of marriage. It has also laid down definite conditions under which a decree of nullity and further of dissolution of marriage could be obtained. According to this Act reliefs by way of judicial separation, declaration of nullity of marriage and divorce are recognised.

Marriage ceremonies : When a Hindu marriage, particularly among higher caste Hindus, is fixed, the priests from both sides decide upon an auspicious day and hour in common consultation. The essential marriage rituals in such wedding ceremonies are : *Vangnishchaya*, *Seemantapujana*, *Madhuparka*, *Antarpat*, *Sutradeshtana*, *Lajahoma*, *Saptapadi* and *Airanipradana*. In consonance with these injunctions of the *dharmashastra* the following procedures are observed in a popular way :—

Akshad : When the wedding day is fixed, invitations by way of printed letters are sent round beginning with the house-gods. On an auspicious day, the relatives of the bride and bridegroom go together in procession to the temples of Ganapati and Devi to invite the deities and offer them coconut, betel-leaves, *kumkum* etc. The priest accompanying the procession invokes the deities to be present at the wedding and ward off all evil. Next, a married pair from either party go round inviting friends and relatives.

Simantapujan : In the evening previous to the wedding day, the ceremony of *Simanta-pujan* or worship of the boundary takes place. The parents of the girl with relatives go to the bridegroom's house with gifts. There, they first worship Ganapati (represented by a betel-nut), Varuna (represented by a water-pot), a lamp and the earth. The feet of the bridegroom are then washed and a dress is offered to him. Next the bride's mother washes the feet of the bridegroom's mother and fills her and her female relations' laps with wheat and pieces of dry coconut kernel. The assembled guests are presented with betel-leaves and betel-nuts and Brahmans with money gifts.

Vangnishchaya : *Vangnishchaya* or the ceremony of oral promise takes place at night. The bridegroom's parents and relations go to the bride's house with a dress and ornaments for the bride. The fathers of the bride and bridegroom exchange a coconut and embrace each other. The bridegroom's father presents the bride with the ornaments and dress brought for her. After the distribution of *pansupari*, they disperse.

Halad or the turmeric ceremony : In the morning of the wedding-day, the girl is rubbed with turmeric paste at her house by some married women on both sides, the remaining portion of which is taken to the boy's house where he is rubbed with it in the same way.

Devapratishta or installation of deities : Before the ceremony begins, the bride with her parents is bathed in hot water by some married women. After changing clothes and bowing to the house-gods and elderly people, the bride's parents begin the ceremony which consists of the worship of planets (represented by betel-nuts), Ganapati, Varuna and *Avighna Kalasha*. The last is an earthen jar daubed with white and red colours. It contains turmeric roots, betel-nuts, a copper coin and sweetmeats and its mouth is covered with an earthen lid tied to it with a piece of cotton thread, passed round several times. It is prayed to ward off all evil. This ceremony is similarly held at the bridegroom's camp.

Gauripujan : *Gauripujan* is performed only by the bride. She worships in the house the goddess Parvati or Gauri and sits there till the wedding time, praying the goddess with words, "Gauri, Gauri, grant me a happy wifehood and long life to him who is coming to my door."

Rukhwat : When the time for wedding draws near, a party from the bride's side takes several dishes of sweetmeats to the bridegroom's house and serves them to the bridegroom and his relations. The bridegroom is worshipped and presented with articles of dress by the bride's father. The priest then asks the bridegroom to bow to the house-gods and elders. Garlanded and dressed in new clothes, with a finger-mark of lamp black on his either cheek, the bridegroom rides a horse or is seated in a car. He is taken in a procession to the bride's house, the females walking just behind him and the males behind the females.

Mangalakshata : When the procession reaches the bride's house, cooked rice, mixed with curds, is waved on the bridegroom's face and thrown off. Next the bride's mother washes the feet of the bridegroom's mother who returns to her place as she must not hear the wedding verses. The bridegroom is then led to the marriage booth where the priests set two low stools and make the bride and the

bridegroom stand on them facing each other. An *anturpat* (curtain) marked with a *swastika* is stretched between them so that they may not see each other. They are given each a garland of flowers to hold and told to look at the *swastika* on the curtain and pray to their family-gods. *Mangalakshatas* (reddened rice) are distributed among the guests; the priests, standing on either side of the curtain, start chanting *mangalashtakas* (auspicious and benedictory verses) and they and the assembled guests and relatives throw the reddened rice at the pair. When the verses end, the curtain is withdrawn to the north amidst a noise of clapping and drums and pipes. The eyes of the boy and the girl meet and the bride first puts the garland in her hand round the neck of the bridegroom and then he does like-wise. They then throw the mixture of rice-grains etc. upon each other's head. Guests, relations and friends are entertained. Each is given a flower bouquet, sprinkling of rose-water, a smear of *altar* and *pansupari*. They are regaled with spiced milk or sweet drinks. Money is distributed among Brahman priests.

Kanyadan: An elaborate rite by which the parents of the bride hand her over to the bridegroom's care and request him to treat her well during her life-time is then gone through.

Lajahoma or Marriage sacrifice.—The pair is led to the altar where fire is kindled. The priest asks them to worship the fire and throw parched rice and *ghee* into it. Next he asks them to take mutual oaths that they will be each other's partners during their life-time for weal or woe. These oaths are taken in the presence of the fire, the earth, the priests and the gods.

Saptapadi: Seven small heaps of rice are made up on the altar and a betel-nut is placed on each of them. The priest recites *mantras* and the bridegroom lifts the bride's right foot and places it on the heaps in succession. When the seventh heap is crossed, the marriage is complete.

Sutradeshtana and Kankanabandhana: The priest passes cotton thread round the pair twelve times which is taken off and divided into two parts. The pair is made to fasten these on each other's wrists.

Sadi Ceremony and Sunmukh: The bride is presented with a new sari and *choli* and her lap is filled with wheat, a coconut and some fruits by the priest and some *suvasinis*. This is followed by *sunmukh* ceremony in which the bridegroom's mother puts on the bride all the ornaments made for her and has a good look at her face and person. She presents the daughter-in-law with new clothes and puts sugar in her mouth.

Zal or Airani pradan: An *airani* or *zal* is a wicker work basket containing several gifts such as coconuts, betel-nuts, fruits, cooked food etc. This is presented by the bride's father to the bridegroom's mother and other relatives. The basket is held on the head of the person to be honoured and while some pour water on it, the priest on behalf of the bride's father says, "We have given you the good-natured daughter, well-nourished and healthy and we request you to treat her kindly."

Varat: The procession of the bride and bridegroom seated together on horse-back or in a carriage proceeds to the bridegroom's house with music accompanied by male and female relatives and friends from either side.

Lakshnipujan: On reaching home the new couple worship the goddess of wealth and asks her blessings.

Naming: The maiden name of the bride is changed and she is given a new name by which she is known afterwards in her husband's family. Betel-packets and sugar are distributed to the party assembled and money to the Brahmans. A ritualistic closure to the marriage ceremony is put with the rites whereby the deities invited before the ceremony began are taken leave of and the marriage booth is dismantled. Social exchange of feasts ends the ceremony.

Peculiarities of the marriage customs among the various castes and sub-castes are given in their accounts. Also those of the Muslims, Christians and Parsees are given in their sections.

FEASTS AND FESTIVALS

Hindus: Hindu life is replete with celebrations of all kinds. There are holidays and other religious festivals and birthday anniversaries of gods and mythological heroes which as a rule are observed every year. But there are other occasional ceremonies evoking special forms of worship and sacrificial offerings. They include ceremonies to obtain or to avert rain, hail-storms or floods and to prevent epidemics or cattle diseases etc. So also many ceremonies and good works by which *punya* (spiritual merit) may be acquired such as the performance of *yatras* (pilgrimages), *homas* (sacrifices), construction of temples dedicated to particular deities, digging of wells or tanks, the planting of mango-groves and so forth while there are many propitiatory ceremonies in which the aid of spirits is solicited for the successful performance of rites of marriage, birth and death.

Every year a Hindu generally goes through the following cycle of feasts and festivals :—

Gudhi Padva: The first day of *Chaitra* is called *Gudhi Padva*, that being the new year day of Hindus observing the *Shalivahan*

Shaka (era). With this day begins the spring, *Vasanta Ritu*. It is ushered in by householders by setting up in front of the house a *gudhi*, i.e., a bamboo pole capped with a small silver or copper pot and a new piece of cloth hanging to it as a flag and offering it the usual worship. Eating a mixture of *neem* leaves, *gul* and *cumin* seeds is a special observance for the day. The day is considered auspicious for building or entering a new house, putting a child to school or starting a new business.

Ram Navami: On the ninth day of *Chaitra*, anniversary of the birth-day of Rama, seventh incarnation of Vishnu, is celebrated. people gather together in holiday dress in the temple of Rama where a silk doll is made to represent Rama and all the ceremonials connected with child-birth are gone through. At 12 noon exactly, the *Haridas* who was holding a series of *Kirtans* from the first day of *Chaitra* declares the birth of Rama by tossing *gulal* (red powder) and the doll is then cradled. *Arati*, distribution of *sunthavada* (a mixture of dry ginger and sugar powdered together), *thirtha prasad*, *kirtan* and *bhajana* in praise of Rama are the functions held at the festival.

Hanuman Jayanti: Exactly at sun-rise on the full-moon day of *Chaitra Hanuman Jayanti*, i.e., the birth of Hanuman, Rama's ideal devotee, is celebrated in the same way as Rama's birth anniversary. It is almost an extension of the programme in connection with *Ram Navami*.

Maha Ekadashi: The *Ekadashi* (eleventh day) occurring in the bright halves of the months of *Ashadha* and *Kartika* are considered particularly sacred by Hindus of all castes and classes. They mark the beginning and the end of *Chaturmasa* (four holy months) and are observed as fast and prayer days by all Hindus. Followers of the *Varkari* sect make it a point to visit the temple of Vithoba at Pandharpur on those days. Those who cannot do so visit the local Vithoba temples.

Gokulashtami: On the dark eighth of *Shravana* falls the *Gokul-ashtami* festival in honour of Shri Krishna's birthday. Exact mid-night of this day was the time of the birth of Lord Krishna and the next day the babe was taken to Gokula. The way the occasion is celebrated varies from place to place. Usually people fast on the *ashtami* day and celebrate the birth by distribution of *sunthavada*. They break their fast that night with feasting or the more strict may postpone it to the next day of *dahikala* or Gokul day when a boisterous play-ritual of breaking the *handi* is celebrated by young people.

Ganesh Chaturthi: On the bright fourth of *Bhadrapada* falls the birth-day of Ganesh, the god of learning and averter of all evil.

A painted clay-image of the elephant-headed god is especially made or purchased for the day from the image-vendors and worshipped with offerings of *modaks* (sweet balls). A special feature of the festival is that in towns, apart from the function in every family, the worship is celebrated on a community scale by public contribution, with the added attraction of religious, semi-social programmes held each day during the festival. Out of a superstition that is still current, a person avoids looking at the moon on the *Chaturthi* day lest he might get involved in a baseless theft charge.

Gauripujan : Conjoined to the Ganapati festival, women hold a celebration in honour of Parvati, mother of Ganesh. The first day is *Gauryavahana*, invitation to Gauri, second is *Gauripujan*, worship of the goddess and the last day is *Gaurivisarjana*, the immersion day.

Dasara : In the month of *Ashwin* falls the great festival of *Navaratra* (nine nights) culminating in *Dasara*, so called from *dasha* (ten) *ahar* (days), it being a ten-day festival in honour of the goddess, Durga. It is also called by Hindus as *Vijaya Dashami* day, the day of victory gained by Rama over Ravana, the demon-king of Lanka (Ceylon). It is also the day on which Goddess Kali vanquished the buffalo-demon Mahishasura. In some places, it was once customary to sacrifice a buffalo on the day. The offering of goats is usual and those who cannot or will not make any animal sacrifice adopt a substitute in the shape of a white pumpkin supported on four sticks resembling the legs of a goat. The first nine days are known as *Navaratra* (nine nights), the first day being *ghatasthapana* or the invocation of the goddess to be present in *ghata* (jar). On the tenth day, every householder worships his caste insignia represented by tools and implements. A Teli will worship his oil-machine, a Kayastha his ink-stand and pen, a black-smith his hammer and anvil, a Brahman his holy books and so on. On this account, *Dasara* is also known as the *Ayudhapuja* day. People have sumptuous meals at noon. Towards the evening they put on a holiday attire and gather together to worship *shami* (*prosopis spicigera*) or in its absence the *Apta* (*bauhinia racemosa*) tree. On this day, the leaves of *Apta* are supposed to symbolise gold and they are exchanged while greeting one another. The *Dasara* day is considered highly auspicious for the undertaking of any new work or business.

Diwali : Twenty days after *Dasara* comes *Diwali* when Lakshmi, the goddess of wealth, is worshipped. She is supposed to pass over the land distributing her gifts of riches ; all, therefore, illuminate their houses and shops in order that they may not be over-looked. The lights are often tastefully and beautifully arranged and the festival is one of the prettiest of the whole year. Two days after *Diwali* comes

Yama Dwitiya when Yama, the god of death, was entertained by his sister at the river Yamuna in Uttar Pradesh. This day is known as *Bhau Beej* in popular parlance because brothers visit their sisters on this day and they are entertained by their sisters; in the evening sisters return the visit, perform the ceremony of *arati* and receive some gift.

Holi: The year closes with *Holi*, the spring Saturnalia, when the demoness Holika is propitiated. This very popular and gay festival is the occasion for a great deal of mirth, gaiety, innocent revelry including the splashing of colour. The *Holi puja* is accompanied by bonfires, symbolism of the destruction of evil amid joyous shouts. At some places, the fire is first kindled by a Mahar. A coconut is hung from a pole in the middle of the fire and when it falls the people secure the burnt core and eat it and smear themselves with ashes of the fire. Next day follows a period of licence and enjoyment in which people throw mud and coloured water at one another and indulge in hilarious songs. There is a brisk buying of *battasa garlands*, a favourite sweet of the day. Folk-songs and group-dances in the street express the popular spirit of abandon. Male dancing in female attire is common.

Vratas: A number of ceremonies of the nature of *vratas* (vows) and propitiatory worships mostly restricted to women of a few castes occur throughout the year.

In the month of *Chaitra*, starting from the bright third and on a convenient day *Suvasinis* hold in their homes the ceremony of *Haladikumku*. The full-moon day of *Jyeshtha* known as *Vatapournima* is observed by married women as a day of prayer so that their husbands may have long life and prosperity. A banyan tree or its bow is worshipped and *vayans* (special offerings) are distributed to Brahmans and *suvasinis*. Some observe a *vrata* or vow for three days during which they live on fruits, tubers and milk only. During *chaturmas* (four months of the rainy season) some women observe *sola Somwars*, i.e., a vow observed on sixteen successive Mondays at the end of which they hold a grand worship of Shiva and Parvati and feast seventeen *dampatys*, i.e., couples. Similarly married girls vow to offer *Shivamooth* (handful of corn) to God Shiva on every Monday of *Shravana*. For the first five years of their married life girls worship *Mangalagauri* on every Tuesday of *Shravana*. The Fridays of the same month which go by the name of *Sampad Shukrawars* (prosperous Fridays) are observed by women with a worship of goddess Lakshmi drawn on a small earthen pot. On the third and the fifth of the bright half of *Bhadrapada* came *Haratalika* and *Rishipanchami* which are observed as days of fast by Brahman

women. The first day is kept by married women and young girls in honour of *Haratalika* (goddess Parvati) who is said to have successfully resisted her father's wish to marry her to Vishnu and married Shiva whom she loved. The second is observed by elderly women in honour of the *Rishis* (great ancient sages) to make amends for sins committed without knowledge. On that day they do not eat anything that is grown by the labour of cattle or any other animal, but eat only fruits and vegetables grown by the human hand. *Vasubaras* which falls on the twelfth day of the dark half of *Ashwina* is observed by some women who have children. They fast for the day and at night after worshipping a cow, give in charity a calf. The day previous to *Sankrant* in the month of *Paush* is called *Bhogi* on which a special dish known as *khichadi* is offered to gods and eaten. On the *Sankrant* day *sugads* (auspicious jars) are presented to Brahmins and the following day known as *Kinkranta* is celebrated by newly-married girls, with *lutane*, a free distribution to *suvasinis* of auspicious articles.

The feasts and fasts of Muslims and Christians have been dealt with in the sections dealing with them previously.

HOUSES AND HOUSING

The patterns of houses and housing have undergone considerable changes particularly in urban areas. The old type of houses of the rich families living jointly consisted of a front and a back part separated by a small open court on each side of which was a passage and in the upper story an open terrace connecting front and back parts of the house. Such a plan accommodated a number of couples.

The more modest houses were generally ones with walls constructed of burnt bricks and tiled roofs. They were found both in towns and villages and are still to be found. The old *Gazetteer* has described their pattern as follows.

Old houses were built with the idea of providing shelter and safety while modern designs and constructions are particular about the principles of convenience, economy, health and sanitation with the necessary safety. Therefore people of means are now having independent cottages and bungalows with accommodation generally consisting of a verandah, a drawing or sitting room, two or three extra rooms to be used as bed-rooms, guest-room, study room, a kitchen, a parlour, pantry or store room and an independent bath and W. C. There is a small garden around and a garage. The rooms are so arranged as to have an independent access for each. The walls are of stone or brick masonry in lime or cement-mortar and plastered. The

doors are panelled or glazed and have brass fixtures. Enough windows are there to allow free passage of air and light. The floors are paved with stone or concrete and are free from dampness, drainage and sanitation being carefully looked after. The roof is either covered with Mangalore tiles or terraced in re-inforced concrete. The rooms are generally colour washed or distempered in different shades of light colour. The drawing room or sitting room is generally provided with five or six cane or wooden chairs or sofa and two side-chairs duly upholstered, one or two easy chairs, one big central table, two or three small tea poys and the floor or the part round about the table covered with a carpet. The dining room is equipped with a dining table and chairs and a side table. The bed-room is furnished with one or two wooden or iron bed-steads, a ward-robe or an almirah and a dressing table with a mirror. Built-in cup-boards, shelves, pegs and sanitary fittings are provided where necessary. A cottage has generally one floor, i.e., ground floor and a bungalow has generally a floor in addition.

During the last fifty year, the trend has been to form co-operative housing societies and ownership flats particularly in urban areas. Self-contained small flats and blocks for small families, whether rented or owned, is the latest vogue. Independent small bungalows are there but even their builders have an eye on providing for two or three tenants in a convenient way.

There has not been much of a change in the housing of the poor and the cultivating classes. The very poor continue to live in huts as they have been doing for ages.

DRESS (HINDU)

The dress ensemble of the Hindus of the district is a blending of different items of dress shared in common with people all over India. At present many of the articles of dress-wear patronised particularly by the educated urbanites are items after the western style. However, many items of dress current among the people in general could be said to have been indigenously evolved.

The sewn garment for the baby is *balut* consisting of a triangular piece of cloth tied round its waist so as to cover the buttocks and the front. This is followed by a *topare* which is a baby-cap covering the ears and *kunchi* which is a cap and a frock sewn together. *Angi* is a general term indicating a sewn garment for the upper body in which could be included *jhable* (frock), *bandi* or *peti* (jacket) worn by the child. When the child grows two or three years old, a round cap

for the head, *sadra* or *pairan* (shirt) for the upper part of the body, *chaddi* or short pants for the lower part are sewn for the use of boys and *parkar* (petticoat), *chaddi* (panties), *polka* (*bodice*) and *jhaga* (frock) are sewn for the use of girls.

The ordinary dress of the upper class Hindus for a man in-doors is a *dhotar* (waist-cloth) and a *sadra* or *pairan* (shirt). Out-of-doors it consists of : first, a head-dress which is a folded cap of cotton, silk or woollen fabric or freshly-folded turban known as *rumal*, *patka* or *pheta*. The pre-formed turban known as *pagdi* is now rarely to be seen. Second, a waist-coat or jacket known as *bandi* which may be used over a shirt. Third, a coat, a short one after the western style or a long one (*dagla*) after what is known as the Parsee fashion. Fourth, a shoulder-cloth or *uparne* especially woven of a light cloth about three yards long by a yard broad worn round the shoulders. The use of *uparne* has gone out of vogue mostly among the urbanites. Fifth, a waist-cloth or *dhotar* of fine cotton cloth with borders on both the sides and about fifty inches wide and four or four and a half yards long. Once Nagpur hand-woven *dhotars* had a reputation for durability and they were in demand all over Maharashtra. But now finer articles produced by mills are in use by the older people. Younger people in the urban areas and even in rural areas have discarded the *dhotar* and the *pyjamas* or short pants have usurped their place. Shoes, whether country-made or factory-made, are used. In urban areas boots, shoes and slippers have come into vogue. The common people generally use sandals or *chappals* and very many patterns have now become current. Women also invariably use *chappals* now.

A well-to-do urbanite may use all the items of the western dress ensemble including the neck-tie or as the current fashion is, a bush-shirt or a bush-coat. In-doors, he is found using *pyjamas*, white or striped and a half shirt or *pairan*. His out-door dress varies between three types : (1) a *lenga* (loose trousers or slacks) and a long shirt known as Nehru shirt or a pair of short pants and a shirt, the flaps of the shirt either being allowed to hang loose on the shorts or tucked inside them. (2) A pair of trousers in combination with a shirt or a half-shirt, a bush-coat or a bush-shirt ; the sleeves of the shirt may be rolled in a band above the elbow. (3) A full western suit including trousers, shirt, perhaps a waist-coat and a neck-tie. For ceremonial occasions, he may prefer to dress in the Indian style in a spacious-looking long coat, called *achkan* and *chudidara pyjamas* or *survar* slightly gathered at the ankles and with bracelet like horizontal folds. A folded woollen or silk cap and *chadhav* or pump-shoe perfects the ensemble. Among the urbanite young men, the use of *dhotar* is practically getting extinct ; it is in some evidence among the middle-aged. The

shendi or scalp-lock has been discarded completely and they cut their hair short. Shoes and boots are kept on even while in-doors. Similarly the practice of going bare-headed everywhere has also come into vogue.

The dress of the ordinary cultivator is the most common place and consists only of a *dhotar*, another cloth thrown over the shoulders and upper part of the body which except for this is often quite bare; a third rough cloth is wound loosely round the head like a turban. All these are originally white but they soon assume a very dingy hue. The every-day attire of a cultivator is thus colourless, but the gala dress for holidays or special occasions may consist of red *pagdi*, (pre-folded turban) or a *mundase* or freshly-folded turban, a coloured or white coat and a white *dhotar* with a red silk border if he could afford it. The coat known as *angarkha* reaching as far as the knees with flaps folding over the breast and tied with strings has completely disappeared whether among the urban or the rural folk. *Chappals* known as *paytans* are used both by men and women working in the fields.

A Hindu woman's dress is the full nine-yard *sadi* and a short-sleeved *choli* covering only about half the length of the back tied in front just beneath the breasts in the middle by a knot made with the edges of the two panels. The nine-yard *sadi* is generally worn by elderly ladies and is known as *lugade* in Marathi. It is forty-two to forty-five inches in width and it has two length-wise borders, *padars*, at the ends of which one is more decorated than the other. The mode of wearing the *lugade* by Brahman women and others is with the hind pleats tucked into the waist at the back centre and the decorated end (*padar*) thrown over the left shoulder. Maratha women allow it to hang from the waist down straight and round like a skirt and draw its end which covers the bosom and the back over the head. *Sadis* of five or six yards in length have now become quite fashionable even among elderly women in the urban areas. These are worn cylindrically over a *parkar* or a *ghagra* also called petti-coat. The old-fashioned *choli* has also gone out of fashion and the use of brassiers, blouses, *polkas* and *jhampers* has become quite common. A reversion to new type of *cholis* in the form of blouses with low-cut necks and keeping a good deal of the upper part of the body bare is noticeable.

To allow freedom of movement for both of their hands, working class women draw the loose end of the *sadi* fluttering on the back from the left shoulder, tightly in front from underneath the right arm and tuck it in the wrap of the *sadi* at the waist. They do not also allow the manifold pleats to dangle low at the ankles, but tuck them tightly at the back. Agri women and Koli women put the *sadi* even above the knees and wear it quite tightly.

The way the Muslim and Christian men and women dress has been explained in their respective sections.

ORNAMENTS (HINDU)

Ornaments are widely regarded particularly in the rural parts more as a means for the safe-keeping of money than for decoration or aids to beauty. People do not like to spend much on the goldsmith's labour or skill which fetches no value on the re-conversion of the ornaments into cash. As a result we find that except for the patronage of a few princes of old or rich persons, ornaments are but specimens of clumsy form and workmanship. Gold ornaments are simply hammered or punched into shape or rudely engraved and are practically never cast or moulded. They are often made hollow from thin plate or leaf, the interior being filled with lac. So also in the case with silver which is also rarely cast.

Ornaments differ in type as used by men and women and by boys and girls. They are worn on the head, in the ears, in the nose, on the neck, across the shoulders, on the arms, wrists and fingers, round the waist, on legs and on the toes. They differ according to caste and community and also as used by males and females, boys and girls.

With Hindus, gold is a very sacred metal and gold ornaments must not, on this account, be worn below the waist, as to do so would be considered an indignity to the holy material. Brahman and Maratha women will not have ornaments for the hand and arms of any baser metal than gold. Other castes should, if they can afford it, wear only gold on the head. Gold and silver in ornaments are also considered to have a protective magical effect, like that attributed to charms and amulets. In the making of ornaments, the recent tendency is to substitute gold and silver and precious stones by alloys, cultured pearls and synthetic stones.

Male : Men rarely use any ornaments now-a-days. However, even now a *sawkar* may display a *bhikbali*, a gold ring set with pearls and a pendant-emerald hanging by the upper lobe of his ear. He may also use gold *salkadis* or a *pochi* on the wrist and a *goph* or chain work with a locket round his neck. If fairly off, a Bania's everyday ornaments may be a silver girdle and a gold armlet worn above the elbow, a pearly ear-ring and a gold or pearl necklace and finger rings. Well-to-do cultivators have gold rings in the ear, *kadas* of solid silver on the wrists or a *dandakade* of silver worn on the arm. A silver chain work girdle known as *kargota* is used round the waist by many.

Female : Fashions in the ornaments of women have considerably changed during the last many years, the general tendency being to avoid gold ornaments of heavy weight.

Head ornaments of any kind as used by women are not much in evidence now. However, some head ornaments such as *mud*, *agraphool*, *ketki-kevada*, *veni*, *rakhadi*, *chandra-surya*, *nag-gonde*, and *gondephule*, all made of gold, are sometimes to be found in old rich families. *Bindi-bijors* and *bhang-tila*, a decorative ornament, is to be found among Marvadis. Flower-shaped ornaments such as *gulabache phul*, *chaphe-kali*, etc., as ornaments for the hair are current.

Ear ornaments such as *chaukada* and *kudi* preferably of pearls and of precious stones are in vogue. *Bugadya*, *balya* and *kap* are in the use of old women. Ear-rings of various types are now getting fashionable.

Nose ornaments : Nose-rings such as *nath* and *besar* as ceremonial ornaments worn by married ladies in the left nostril are current. *Nath* of the rich is studded with pearls and gems, but that of the poor is made of gold. *Besar* is smaller in size. Other types of nose-rings are *murni*, *mugvat*, *phuli*, *kanta*, *chamki* and *bulak*.

Neck-laces such as *mangalsutras* of various types, the black beads being stringed together by different types of chain-work with gold beads and cups in the middle and used symbolically by married women are now-a-days worn by them as an ornament. Other types of neck-laces in current use are : *bakulahar*, *bormal*, *chandrahari*, *chaplahari*, *ekdani*, *jondhalipot*, *tandulipot*, *mohanmal*, *Kolhapur saj*, *putalyanchi mal* and *pohe-har*. *Sari*, *Thusi*, *vajrateek*, are getting rare among the educated and sophisticated but are still in vogue among the rural and cultivating classes. *Petya*, *pot*, *laphpha*, *tanmani* and *pende* are made of pearls and to be found only among the rich.

Hand ornaments such as *kankane* (bangles) of various patterns known as *bilori*, diamond, double diamond, *hodighat*, *panch-pailu*, *teen-pailu*, etc., are current. *Patlya*, wristlets known as *jalichya*, *todichya*, *minyachya*, *pailuchya*, *puranachya* all made of gold are current. Costlier bangles studded with pearls, diamonds and precious stones are in the use of the rich. Armlets such as *bajubanda* and *vakis* of the types known as *batrichya*, *modvakya*, *rudragath*, *tulbandi* made of gold are in use on ceremonial occasions. Silver ones are used by the rural and cultivating classes.

Foot and leg ornaments are usually made of silver and are worn by some classes. They are *toda*, *tordya*, *sakhalya* and *vale*. *Masolya*, *jodvi*, *phirvi*, *salle*, are silver toe-rings and are used by women on marriage-days among the sophisticated but by others always.

Child ornaments are *bindlya*, *mangatya*, *kaditode* which are wristlets and *goph*, *hasali sakhli*, and *taiti* which are neck-laces, made either of gold or silver. *Sakhli* and *sarpoli* are used round the waist and *ghungurwale* and *vale* are worn on the ankles.

DIET

The cultivating classes eat three times a day, first at about 8 a.m., at mid-day and for the third time after dark. The morning meal called *nyahari* is often eaten in the field and sometimes even mid-day meal but the third meal at night is always eaten at home. If he can manage, the cultivator comes home at noon, has his bath and takes the meal and after some rest goes back to work. After finishing he comes back home in the evening and if it is not the harvest season he sleeps at home, otherwise he goes back to the field again to watch the crop and protect it from wild animals and thieves. Rice is the only crop in this district, though some beans are grown in some areas after the rice-crop is harvested. Of late, *jowar* also is grown and consumed in some parts. Wheat is eaten by the better class of people as a supplementary cereal to rice. *Nachani* and *vari* breads (*bhakars*) are used for *nyahari* by the cultivators to the accompaniment of onions and garlic. Groundnut-oil and chilli powder with salt are used to leaven vegetables.

It is only Brahmans who are strict vegetarians who live on rice, wheat, vegetables and fruit. However many among them take animal food now-a-days. All others take animal food frequently or occasionally as means permit, but Hindus will never take beef.

The dietary of the well-to-do urbanites and of some Hindus is somewhat elaborate and systematised. Besides the usual cereals, pulses, vegetables and oils, a vegetarian includes in his diet, dairy-products like milk, butter, curds, butter-milk, *ghee* (clarified butter) and *vanaspati* (hydrogenated oils) on a liberal scale. Morning tea with a light breakfast is followed by two meals—one between ten and eleven in the morning and the other between eight and nine in the evening.

Generally, a Brahman eats wearing only a clean *dhoti*. Not long, the rule among them was to put on a silk *dhotar* or a woollen *dhabli* for taking food but the practice has almost gone out of fashion. Only on festivals and feasts occasions like *Ram Navami* and *Mahashivaratri* they still put on sacred clothes. In old-fashioned families they still take food while sitting on low stools, one for each person. Rice, wheat, pulses and vegetables are generally the materials of both meals, the evening meal being lighter and curd always eaten. *Besan* or gram-flour fried with onions and chillis and other spices and oil is a favourite dish. With rice is taken some *ghee*, *varan* or liquid split pulse and a curry or *amti* of split pulse boiled with onions, spices, salt and tamarind. Curds, milk and butter-milk are indispensable with some castes, particularly Brahmans. Savouries like *chatni*, *rayatas*, *koshimbirs*, pickle, *papad* and *sandge* are the usual adjuncts to a meal among the well-to-do.

The dinner is served in three courses, the first of boiled rice and pulse with a spoonful or two of *ghee*, the second of *poli* or *chapati*, sugar and *ghee* with salads and the third of boiled rice with butter-milk or curd. Vegetables are served with each course. The plate is not changed during the dinner. In each course, the chief dish is served in the centre of the plate, the vegetables and curries (in cups) are arranged on the right and on the left the salads, a piece of lemon and a little salt.

In more advanced communities, a table-cloth, white or coloured, is spread on the ground or on the tables and dishes are placed on it. The people sit round it on stools and take their food from dishes placed in the centre. Some well-to-do families from the upper classes have now-a-days taken to dining tables.

STIMULANTS AND NARCOTICS

Brahmins, as a rule, do not take any intoxicating drinks or liquors ; others do occasionally.

Tea-drinking has become quite common in the middle class families, it being taken at least twice, once in the morning and again in the after-noon. It is equally popular among the artisans, mechanics, drivers and other hard manual workers. Among office-goers, tea is taken too frequently. The decoction of tea-leaves is mixed with sugar and milk ; some people add even cardamom and ginger to it as a cure of indigestion. Coffee is also getting popular but it has not made the same head-way as tea. Among the better class of people, bournvita, horlics and such drinks are getting popular, because they find milk monotonous. Cold drinks, *sharbats* are casually used, more on ceremonial occasions in middle class families. Aerated waters are confined to urban areas and coastal towns where tea, coffee, *lassi* (cold drink of curd) are usual drinks served in restaurants, canteens and tea-shops.

Tobacco is used as a very common stimulant in various forms among all classes of people. Tobacco is chewed either plain or along with betel-leaves and arecanut and other ingredients. It is smoked in pipes or cigarettes or *bidis*. Two kinds of pipes are in general use, the long-stemmed *hukka* or hubble-bubble in which smoke is cooled as it is inhaled through water and the short almost stemless bowl or *chilim* where the smoke is sucked through a wet cloth wrapped at its bottom. Tobacco to be smoked in the *hukka* or hubble-bubble is known as *gudakhu* which is specially processed with molasses and water and used by landed proprietors and richer classes. Women seldom smoke, though among working class women and Agri women, smokers are not by any means rare. They use only *bidis*. Tobacco is used in all communities.

Fermented liquor as prepared from the wild date palm or *Khajuri* and the *Mahua* flowers are consumed by the hill-tribes, the cultivating classes and by some others. Toddy is a favourite drink among Parsees. There are few consumers of imported western wines and liquors. Except the high class Hindus, others take drink occasionally or usually.

Three preparations from hemp *bhang* or *ambadi*, i.e., *bhang*, *yakut* and *ganja* are in use among the addicts. *Bhang* is made from the leaves, flowers and seeds of the plant, first baked over fire and then grounded very fine. The intoxicating power depends to a considerable extent on the degree of fineness of the powder. According to the taste and means of the consumer, dry rose leaves, almonds, cardamoms, pepper and other spices are pounded and mixed with the powder. The whole is again ground with water or milk, sweetened with sugar and strained through a cloth and the preparation is ready for drinking. Among even high class Hindus who do not take liquor this is a favourite drink on an occasion like the *Mahashivaratri* or *Holi*. In the hot season and throughout the year, on holidays and festivals *bhang* is generally consumed but there are few regular consumers of it. In small quantities, it has a cooling effect, it is slightly intoxicating and it causes a keen feeling of hunger. *Yakuti* or *Majum* is *bhang* boiled in clarified butter and it is an expensive article prepared by professionals.

The dried hemp plant which has flowered and from which the resin has not been removed is called *ganja*. As a rule *ganja*-smokers are to be found at Shiva temples or shrines, among religious mendicants and lower order of Brahmans. The plant washed four or five times, dried and mixed with tobacco, is smoked in whiffs about every half hour by the addict. Its effects are sudden and strong. Opium used either as a drug or as a narcotic is administered in several ways. It is rolled into a pill and swallowed or dissolved in water and drunk or smoked in a special preparation known as *chandol*.

AMUSEMENTS

Holidays and religious festivals are great occasions of social entertainment to all. Various types of dancing activities generally of the nature of folk dances are current among the people, the occasion for them usually being the various religious festivals occurring mainly in the months of *Shravana*, *Bhadrapada* and *Phalgun*. On the dark night of the 8th in *Shravana* and the day following are celebrated the festivals of *Gokulashtami* and *dahikala* which are occasions for the display of the spectacular *goph* and *tipri* and the boisterous *Kala* and *Govinda* dances. In the same month among Brahmans and other

advanced classes, on the occasion of the *Mangalagaur puja* young maidens dance a variety of folk dances known as *phugdya*. On the bright fourth of the *Bhadrapada* and after come Ganapati and Gauri festivals. In towns, at the public Ganapati celebrations are held Mela performances. In villages, the agricultural and artisan classes enthusiastically observe the Gauri festival with singing, dancing and merry-making. *Holi* or *Shimga* festival declaring the advent of the spring is spent in boisterous activities to include the performances of *tamasha* troupes. Kolis with their special dances at the *Gauri* and *Shimga* festivals are much awaited by the people.

Some dances are performed out of religious ecstasy and fervour than out of a longing to give expression to any love of art or æsthetic feeling. The *dindi* dance which devotees or *bhajanees* of the *Varkari* cult engage in while going to a Vithoba temple or taking part in a religious procession belongs to this kind. Another dance of the ecstatic kind is the Mahalakshmi dance better known as *ghagar phunkane* perhaps exclusively practised by women of the Chitpavan Brahman community at the time of Mahalakshmi worship in the bright half of *Ashvin*.

Bhajan, *Bharud*, *Gondhal*, *Kirtan*, *Lalit*, *Tumbdi* singing and *Tamasha* are some of the forms of community entertainment based on folk-songs, which have been traditionally sung. Of these, *bhajan* performances which aim at religious communion to be achieved by chanting devotional songs in chorus is very popular among the masses. Occasionally *bhajan-saptahas*, i.e., non-stop sessions of *Bhajan* singing for seven days are held in temples. The topic of spiritual uplift of man is delineated in songs known as *Bharuds* which are humorously composed. *Gondhal* is a semi-musical performance given by a professional *gondhali* and his troupe in praise of gods and goddesses such as Malhari, Bhawani, Rama and other legendary heroes. A *kirtan* is a musical discourse, given by a *kirtankar*, in which God and religion are discussed in poetry and prose. Now-a-days, there is a tendency to employ and exploit this institution as a vehicle for spreading cultural and social reform ideas instead of purely religious ones. *Lalit* as the probable pre-cursor of Marathi drama is a form of crude theatrical which has for its plot an incident from the *Puranas*. *Tumbdis* are musical satires on social problems. *Tamasha* which is perhaps the most popular and alluring recreational activity in rural areas consists of a *bari* of five to seven artistes of historic talent and musical skill. The *nachya* (dancer) in an amateur *tamasha* troupe is generally a boy dressed as a girl. In professional *tamasha* a female dancer and singer is the centre of attraction. *Gana*, *Gavlan* and *Vag* are the principal components of a *tamasha* and the ruling sentiment maintained throughout by means of dialogue and *lavani* is usually crude and sensuous humour leaning to the erotic.

Kunbi and Agri women indulge in *phugadi* and allied dances at the time of Gauri-Ganapati and dances are performed by Agri males. There are three varieties of them. One is a simple dance conducted by a *buwa* who sings and beats the *nal* (drum) to regulate the steps and other movements of the dancers numbering eight to twenty. In the second variety the dancers are equipped with pairs of small sticks *tiparyas* in addition to kerchiefs and *ghungurs*. The third variety is known as dance of nymphs (*Paricha nach*) which includes boys and girls dressed in fancy clothes of *paris* or celestial beings. The Sonkolis, fishermen are famous for their *Kolyancha nach*. It is a dance imitating a boat being rowed in the open sea. "With miniature oars in their hands the dancers imitate the rowing of a boat now in full swing, now in lull. With their bodies swinging backwards and forwards in full unison, they create a plastic picture of a boat tossing on the waves of the sea" as recorded by Agarkar in *Folk Dances of Maharashtra*.¹

Katkaris and Thakurs are also famous for their folk-dances. Apart from the exclusive male and female dancers in groups in the open, the Katkaris have mixed group dances in private. Under a stranger's gaze, their women run shy and men feel reserved. This is true about the Thakurs also. The formation of these tribal group dancers is usually a circular one. Important figures in the dance are two, viz., the *Khelya* and the *Dholya*. The first is the singer and leader dancer and the second is the musician of the drum. The dance commences with the *Dholya* beating the drum and the dancers gathering round him in a circle. Some of them, particularly the *Khelya*, have *chala* (jingers) tied to their feet. The *Khelya* sings out a line of a song which is then repeated in chorus by the group. He then initiates the dancing move and others follow suit. The drummer doubles his speed, the dancers displaying more lively steps and as he trebles or quadruples his speed, the tempo of the dancing increases. This goes on till the dancers get tired. The drummer then resumes the original speed and the dancers cease dancing, walk a silent round or two and then make a halt. The *Khelya* then sings out a second line of his song, the chorus takes up the refrain and resumes dancing afresh. For every start, the beginning steps are the same but as the dancing progresses, new exhibition steps are displayed. Katkari women have dances of their own. Largely, they imitate the dances of their men, but they have got their own songs which are quite distinct from male songs by way of greater simplicity and charming rhythm. The exclusively female dance of the Katkaris is the *dera* dance which in some respects resembles the *garba* dance of Gujaratis.

The Thakurs have a variety of dances. During the *Holi* festival, they dance the *Phulbaja*, on *Gokulashtami* day the *Govinda* and during *Vagh-baras* festival the *Vaghya* dance. The Ma Thakurs never have a mixed dance but the Ka Thakurs have. The Ma men's dance is called *Kambad* in some places. The Ma women's dance has no particular name. The *Tamasha* in which a young boy in female attire dances to the accompaniment of instruments played by his companions is the only instance of sole dancing among the Thakurs.

GAMES

Recreational activities popular among boys are games such as *atyapatya*, *kho-kho*, *hututu*, *viti dandu* and *lagorya*, *gotya* (marbles), *bhovra* (top) and *patang* (kite) and tag and chase games such as *andhali koshimbir* and *lapandav*. They are popular among boys of all ages. Games such as *aba-dabi*, *gupchup-toba*, *surparambi* and *vagh bakri* are played in a team-spirit. *Bhatukli* (house-keeping), *sagargote*, *kavadya* and *phugadya* are games played by girls. *Kabaddi* has now become very popular among boys and girls in all schools.

Of the popular in-door games current in the district the chief are : chess (*Buddhibala*), cards (*pattie*) and *songatya*, the Indian back gammon. The chess played in Indian style is different from the western style in some points such as : only the pawns of the King, Queen and Castles can at starting move two squares ; that the first move of the king, when not under check, may be the same as a knight's move ; that only the king and queen's pawns can become a queen and that if the game goes on till five pieces are left, it is drawn. The *jora-jori* style in the Indian game is played with the rule that no covered piece can be taken.

Of the card games a type known as *ganjipha* played by three players with eight suits of round cards—twelve cards to each suit—is now practically extinct. The current card games played among the elite are mostly Contract Bridge, Bezique, Rummy and Flush. Among others the popular games (of doubtful origin) are : *Ladis*, *Panch-Teen-don*, *Sat Hati* and *Jhabbu*.

The game of *Songatya* or Indian back gammon is played with sixteen counters, *songatya* of two or four colours, eight of each. The scoring is fixed by throwing either three hand dice or six *Kavdi* shells. The game is played between two sides of two to eight players and with eight counters for each side. The playing board is like a cross of four rectangles, each rectangle being marked like a chess board eight squares long and three squares broad enclosing a central spare square. Starting one by one from the square next to the central space the players send the counters round the outer row of squares till they work back to the starting point. A piece, unless protected, is captured

by the opposite player and it has to start afresh and complete the round. The game goes on till one party succeeds in working all its men round the board.

Modern games played in some families are draughts and snakes and ladders. Carrom is played both in clubs and homes.

GYMNASIUMS

Recreational activities popular with the rural population are cart-racing, fights between cocks, bullocks, buffaloes and rams, gymnastics and wrestling. *Talim* or *akhadas* are an indigenous institution for training athletes or wrestlers, though it is much on the wane. A local gymnasium is usually under a master called *ustad*, generally an experienced athlete, who is paid by his pupils by way of entrance and monthly fees and by gifts. The usual time for amateurs to indulge in athletic exercises is in the evening before dinner. For developing physical strength and stamina, the popular exercises followed are *baithaks*, sitting on the ground and rising with a spring and *danda* stretching the body face down nearly parallel to the ground, supporting its weight on the hands and toes and alternately straightening the arms and letting the chest drop between them. Clubs (*mudgals*) (pair) generally of blackwood and weighing from a pound to ten pounds each and *kaula* (*single*) weighing twenty pounds or more are also much used for the purpose. Muscles are strengthened and are made agile by pulling chains and practising grips and jumps on a polished pole, *malkhamb*. Dumb-bell, bar bell, double bar etc., are the other adjuncts used with the same objective. Of contests of skill and strength are the exercises with the *patta* or long sword, *lakadi* and *bothati* sticks and a kind of fencing displayed with *pharigadga* a leather-quilted stick and a shield. For training in wrestling is provided in a wrestlers' pit, called *houda*, filled with soft earth where various holds after Indian style to make the rival's back touch the ground are practised.

Wrestling as a popular pastime is losing ground in the district. However, wrestling bouts or *phads* as the local term goes are well organised and villagers take interest in them. These bouts are held in the monsoon, the main days being the festivals of *Nag Panchami*, *Janmashtami* and *Narali Purnima*. Bouts are also arranged at many village fairs. Hardy youths especially equip themselves with practice and training under *ustads* to enter the arenas of wrestling tournaments at various places in the district. Funds are raised by the villagers to meet the expenses of organising the tournaments and instituting prizes for the winners. A combatant is recognised as the winner if he succeeds in

throwing his opponent on the ground and makes his back touch the ground.

Bullock racing in light carts (*chhakdas*) goading the animals to speed by using *parani* (nail-pointed stick) is a popular amusement with the agriculturists in the district.

Plays dealing with mythological or historical subjects and performed by enlightened amateurs on festive occasions like *Mahashivaratri*, *Ram Navami* and *Hanuman Jayanti* constitute a popular form of entertainment with the rural population of the district.

Concerts are often held in the halls of private houses where people are freely invited to enjoy the performance of a maestro or an *ustad* in singing or in instrumental music played on *sitar*, *dilruba*, harmonium, flute, *tabla* etc. Many a house in the urban areas are equipped with a harmonium, a *tabla* set, a gramophone or a radio set or a television to amuse the inmates in their leisure.

Swimming is usually taught to boys during the childhood. Now-a-days girls also are encouraged to learn floating on water. Mountaineering is getting gradually popular among the young.

TABLES

TABLE NO. 1—TALUKA-WISE POPULATION, THANE DISTRICT, 1971

Taluka	Total/ Rural/ Urban		Area in square kilometres	Density per square kilometre	Population		
					Persons	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Thane	.. Total	..	305.4	1,087	3,32,097	1,84,770	1,47,327
	Rural	..	239.5	477	1,14,147	61,799	52,348
	Urban	..	65.9	3,307	2,17,950	1,22,971	94,749
Vasai	.. Total	..	526.3	405	2,13,026	1,09,642	1,03,384
	Rural	..	499.7	311	1,55,404	79,342	76,062
	Urban	..	26.6	2,168	57,622	30,300	27,322
Palghar	.. Total	..	1,092.7	195	2,13,405	1,09,177	1,04,228
	Rural	..	1,077.1	175	1,88,970	95,956	93,014
	Urban	..	15.6	1,562	24,435	13,221	11,214

TABLE No. 1—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dahanu	.. Total	.. 963·7	194	1,87,152	95,092	92,060
	Rural	.. 955·8	178	1,69,996	85,971	84,025
	Urban	.. 7·9	2,185	17,156	9,121	8,035
Talasari	.. Total	.. 248·1	215	53,385	26,566	26,819
	Rural	.. 248·1	215	53,385	26,566	26,819
	Urban	.. ....	....	....	....	....
Jawhar	.. Total	.. 804·7	119	95,896	48,493	47,403
	Rural	.. 795·6	113	89,786	45,269	44,517
	Urban	.. 9·1	674	6,110	3,224	2,886
Mokhada	.. Total	.. 627·3	87	54,430	27,715	26,715
	Rural	.. 627·3	87	54,430	27,715	26,715
	Urban	.. ....	....	....	....	....
Vada	.. Total	.. 736·3	114	83,914	42,535	41,379
	Rural	.. 725·3	104	75,746	38,254	37,492
	Urban	.. 11·0	744	8,168	4,281	3,887
Bhiwandi	.. Total	.. 683·0	360	2,46,024	1,37,406	1,08,618
	Rural	.. 678·9	245	1,66,448	88,056	78,392
	Urban	.. 4·1	19,315	79,576	49,350	30,226
Shahapur	.. Total	.. 1,645·4	87	1,43,325	73,616	69,709
	Rural	.. 1,638·6	83	1,35,438	69,425	66,013
	Urban	.. 6·8	1,162	7,887	4,191	3,696
Murbad	.. Total	.. 898·5	111	99,585	50,748	48,837
	Rural	.. 898·5	111	99,585	50,748	48,837
	Urban	.. ....	....	....	....	....
Kalyan	.. Total	.. 325·3	843	2,74,382	1,47,267	1,27,115
	Rural	.. 311·2	330	1,02,736	54,268	48,468
	Urban	.. 14·1	12,173	1,71,646	92,999	78,647
Ulhasnagar	.. Total	.. 343·2	831	2,85,043	1,51,828	1,33,215
	Rural	.. 300·8	162	48,844	25,203	23,641
	Urban	.. 42·4	5,570	2,36,199	1,26,625	1,09,574
District Total	Total	.. 9,553·0	239	22,81,664	12,04,855	10,76,809
	Rural	.. 9,349·5	156	14,54,915	7,48,572	7,06,343
	Urban	.. 203·5	4,062	8,26,749	4,56,283	3,70,466

TABLE NO. 2—TOWNS CLASSIFIED BY POPULATION IN 1971 WITH VARIATIONS SINCE 1901, THANE DISTRICT

Town	Year	Area in square kilometres	Population	Decade variation	Percentage decade variation
(1)	(2)	(3)	(4)	(5)	(6)
Ulhasnagar City agglomeration—	1901 ..	....	10,749	....	....
	1911 ..	....	12,600	+ 1,851	+ 17·22
	1921 ..	....	17,829	+ 5,229	+ 41·50
	1931 ..	....	26,291	+ 8,462	+ 47·46
	1941 ..	....	31,356	+ 5,065	+ 19·27
	1951 ..	....	1,69,365	+ 1,38,009	+ 440·14
	1961 ..	44·21	2,47,250	+ 77,885	+ 45·99
	1971 ..	45·53	3,96,384	+ 1,49,134	+ 60·32
(a) Ulhasnagar City	1951 ..	....	80,861	....	....
	1961 ..	13·34	1,07,760	+ 26,899	+ 33·33
	1971 ..	13·34	1,68,462	+ 60,702	+ 56·33
(b) Kalyan ..	1901 ..	....	10,749	....	....
	1911 ..	....	12,600	+ 1,851	+ 17·22
	1921 ..	....	17,829	+ 5,229	+ 41·50
	1931 ..	....	26,291	+ 8,462	+ 47·46
	1941 ..	....	31,356	+ 5,065	+ 19·27
	1951 ..	....	58,900	+ 27,544	+ 87·84
	1961 ..	7·64	73,482	+ 14,582	+ 24·76
	1971 ..	7·64	99,547	+ 26,065	+ 35·47
(c) Ambarnath ..	1951 ..	....	21,498	....	....
	1961 ..	16·81	34,509	+ 13,011	+ 60·52
	1971 ..	18·13	56,276	+ 21,767	+ 63·08
(d) Dombivli ..	1951 ..	....	8,106	....	....
	1961 ..	2·33	18,407	+ 10,301	+ 127·08
	1971 ..	2·33	51,108	+ 32,701	+ 177·66
(e) Mohane ..	1961 ..	1·73	7,289	....	....
	1971 ..	1·73	11,344	+ 4,055	+ 55·63
(f) Kate Manivali..	1961 ..	2·36	5,803	....	....
	1971 ..	2·36	9,647	+ 3,844	+ 66·24
Thane City agglomeration—	1901 ..	....	16,011	....	....
	1911 ..	....	15,591	— 420	— 2·62
	1921 ..	....	22,639	+ 7,048	+ 45·21
	1931 ..	....	21,816	— 823	— 3·64
	1941 ..	....	29,751	+ 7,935	+ 36·37
	1951 ..	....	67,759	+ 38,008	+ 127·75
	1961 ..	33·46	1,09,215	+ 41,456	+ 61·18
	1971 ..	41·42	2,07,352	+ 98,137	+ 89·86

TABLE No. 2—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)
(a) Thane City	..	1901 ..	....	16,011	....
		1911 ..	....	15,591	— 420
		1921 ..	....	22,639	+ 7,048
		1931 ..	....	21,816	— 823
		1941 ..	....	29,751	+ 7,935
		1951 ..	....	61,767	+32,016
		1961 ..	26·75	1,01,107	+39,340
		1971 ..	26·16	1,70,675	+69,568
(b) Majivade	..	1971 ..	8·55	22,126	....
(c) Kalwa	..	1951 ..	....	5,992	....
		1961 ..	6·71	8,108	+ 2,116
		1971 ..	6·71	14,551	+ 6,443
Bhiwandi	..	1901 ..	....	10,354	....
		1911 ..	....	13,292	+ 2,938
		1921 ..	....	12,188	— 1,104
		1931 ..	....	15,619	+ 3,431
		1941 ..	....	18,776	+ 3,157
		1951 ..	....	25,764	+ 6,988
		1961 ..	4·12	47,630	+21,866
		1971 ..	4·12	79,576	+31,946
Vasai Town agglomeration—	..	1901 ..	....	10,702	....
		1911 ..	....	9,598	— 1,104
		1921 ..	....	10,366	+ 768
		1931 ..	....	12,689	+ 2,323
		1941 ..	....	13,969	+ 1,280
		1951 ..	....	19,640	+ 5,671
		1961 ..	13·00	28,238	+ 8,598
		1971 ..	17·02	44,909	+16,671
(a) Vasai	..	1901 ..	....	10,702	....
		1911 ..	....	9,598	— 1,104
		1921 ..	....	10,366	+ 768
		1931 ..	....	12,689	+ 2,323
		1941 ..	....	13,969	+ 1,280
		1951 ..	....	19,640	+ 5,671
		1961 ..	8·13	22,598	+ 2,958
		1971 ..	8·00	30,594	+ 7,996
(b) Manikpur	..	1971 ..	4·15	7,610	....
(c) Sandor	..	1961 ..	4·87	5,640	....
		1971 ..	4·87	6,705	+ 1,065

TABLE No. 2—*contd.*

		(1)	(2)	(3)	(4)	(5)	(6)
Dahanu Town	..	1951	..	....	8,904	....	....
agglomeration—		1961	..	7·85	15,304	+ 6,400	+71·88
		1971	..	7·85	17,156	+ 1,852	+12·10
(a) Dahanu	..	1951	..	....	8,904	....	....
		1961	..	5·54	9,648	+ 744	+ 8·36
		1971	..	5·54	9,637	— 11	— 0·11
(b) Malyan	..	1961	..	2·31	5,656	....	....
		1971	..	2·31	7,519	+1,863	+32·94
Shirgaon	..	1951	..	....	8,316	....	....
		1961	..	10·41	10,455	+2,139	+25·72
		1971	..	10·41	13,881	+3,426	+32·77
Virar	..	1951	..	....	7,233	....	....
		1961	..	9·56	9,413	+2,180	+30·14
		1971	..	9·56	12,713	+3,300	+35·06
Bhayandar	..	1951	..	....	6,327	....	....
		1961	..	24·45	6,974	+ 647	+10·23
		1971	..	24·45	10,598	+3,624	+51·96
Palghar	..	1921	..	....	2,852	....	....
		1931	..	....	3,678	+ 826	+28·96
		1941	..	....	4,101	+ 423	+11·50
		1951	..	....	7,168	+3,067	+74·79
		1961	..	5·23	8,277	+1,109	+15·47
		1971	..	5·23	10,554	+2,277	+27·51
Vada	..	1951	..	....	5,122	....	....
		1961	..	10·98	6,338	+1,216	+23·74
		1971	..	10·98	8,168	+1,830	+28·87
Shahapur	..	1961	..	6·79	5,502	....	....
		1971	..	6·79	7,887	+2,385	+43·35
Kulgaon	..	1971	..	3·63	6,758	....	....
Jawhar	..	1901	..	....	3,567	....	....
		1911	..	....	3,240	— 327	— 9·17
		1921	..	....	2,351	— 889	—27·44
		1931	..	....	2,722	+ 371	+15·78
		1941	..	....	3,370	+ 648	+23·81
		1951	..	....	4,712	+1,342	+39·82
		1961	..	19·32	4,732	+ 20	+ 0·42
		1971	..	9·07	6,110	+1,378	+29·12
Badlapur	..	1971	..	7·25	4,703	....	....

TABLE No. 3—VILLAGES CLASSIFIED BY THANE DISTRICT, 1971

District/Taluka	Total number of inhabited villages	Villages with less than 2,000 population									
		Total rural population				Less than 200			200-499		500-999
		Persons	Males	Females	Number of inhabited villages	Population	Number of inhabited villages	Population	Number of inhabited villages	Population	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Thane District	..	14,54,815	7,48,572	7,06,343	173	21,846	474	1,64,763	514	3,63,235	
Talukas											
Thane	..	1,14,147	61,799	52,348	5	439	9	3,050	19	13,559	
Vasai	..	1,55,404	79,342	76,062	5	657	10	3,971	17	11,854	
Palghar	..	1,88,970	95,956	93,014	17	2,049	54	18,330	56	41,280	
Dahanu	..	1,69,996	85,971	84,025	4	594	20	6,413	44	30,981	
Talasari	..	53,385	26,566	26,819	....	....	2	920	4	3,055
Jawhar	..	89,786	45,269	44,517	6	956	34	12,025	40	28,748	
Mokhada	..	54,430	27,715	26,715	4	496	17	5,910	35	25,340	
Vada	..	75,746	38,254	37,492	32	4,164	72	24,906	52	36,840	
Bhiwandi	..	1,66,448	88,056	78,392	20	2,424	70	23,375	60	42,458	
Shahapur	..	1,35,438	69,425	66,013	28	3,177	62	21,125	67	47,648	
Murbad	..	99,585	50,748	48,837	27	3,664	63	22,628	60	41,831	
Kalyan	..	1,02,736	54,268	48,468	13	1,618	28	10,326	32	21,407	
Ulhasnagar	..	48,844	25,203	23,641	12	1,608	33	11,784	28	18,234	

TABLE No. 3—*contd.*

District/Taluka	Villages with less than 2,000 population				Villages with a population 2,000-9,999				Villages with a population 10,000 and above	
	Less than 1,000-1,999				2,000-4,999				5,000-9,999	
	Number of inhabited villages (12)	Population (13)	Number of inhabited villages (14)	Population (15)	Number of inhabited villages (16)	Population (17)	Number of inhabited villages (18)	Population (19)		
(1)										
Thane District ..	289	3,88,206	112	3,23,055	24	1,61,491	2	32,319		
<i>Talukas</i>										
Thane	15	21,256	18	53,628	3	22,215	...	...
Vasai	29	41,605	17	50,875	4	24,385	1	22,057		
Palghar	40	53,700	15	44,282	4	29,329	...	...
Dahanu	38	49,680	15	39,548	6	42,780	...	...
Talasari	11	16,630	9	27,312	1	5,468	...	...
Jawhar	28	37,762	4	10,295	...	...	...	...
Mokhada	10	12,466	3	10,218	...	...	...	...
Vada	8	9,836	...	...	...	...	...	...
Bhiwandi	33	44,730	12	35,508	1	7,691	1	10,262		
Shahapur	31	41,102	6	17,331	1	5,055	...	...
Murbad	18	22,791	1	2,355	1	6,316	...	...
Kalyan	18	23,835	10	27,298	3	18,252	...	...
Ulhasnagar	10	12,813	2	4,405	..	...	...	...

TABLE No. 4—TALUKA-WISE STATISTICS OF VILLAGES AND POPULATION, THANE DISTRICT, 1971

State/District/ Taluka	(1)	Area in square kilometres (Rural)	(2)	Number of inhabited villages	(3)	Rural population	(4)	Average population per inhabited village	(5)	Number of inhabited villages per 100 square kilometres of rural area	(6)
Maharashtra State	..	3,01,611.0		35,773		3,47,01,024		970.03		11.86	
Thane District	..	9,349.5		1,588		14,54,915		916.19		16.98	
<i>Talukas</i>											
Thane	..	239.5		69		1,14,147		1,654.30		0.29	
Vasai	..	499.7		83		1,55,404		1,877.34		0.17	
Palghar	..	1,077.1		186		1,88,970		1,015.97		0.17	
Dahanu	..	955.8		127		1,69,996		1,338.55		0.13	
Talasari	..	248.1		27		53,385		1,977.22		0.11	
Jawhar	..	795.6		112		89,786		801.66		0.14	
Mokhada	..	627.3		69		54,430		788.84		0.11	
Vada	..	725.3		164		75,746		461.87		0.23	
Bhiwandi	..	678.9		197		1,66,448		844.91		0.29	
Shahapur	..	1,638.6		83		1,35,438		1,631.78		0.05	
Murbad	..	898.5		111		99,585		897.16		0.01	
Kalyan	..	311.2		330		1,02,736		311.32		1.06	
Ulhasnagar	..	300.8		193		48,844		253.78		0.06	

TABLE NO. 5—POPULATION BY AGE DISTRIBUTION IN THANE DISTRICT, 1971

Age-Group	Total population			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Total	22,81,664	12,04,855	10,76,809	14,54,915	7,48,572	7,06,343	8,26,749	4,56,283	3,70,466
0-14	9,15,696	4,67,239	4,48,457	6,12,812	3,10,944	3,01,868	3,02,884	1,56,295	1,46,589
15-19	2,01,641	1,07,947	93,694	1,24,331	65,680	58,651	77,310	42,267	35,043
20-24	2,08,768	1,09,427	99,341	1,18,359	58,972	59,387	90,409	50,455	39,954
25-29	2,03,964	1,07,962	96,002	1,19,209	59,504	59,705	84,755	48,458	36,297
30-39	3,24,991	1,79,612	1,45,379	1,97,573	1,03,893	93,680	1,27,418	75,719	51,699
40-49	2,11,422	1,20,210	91,218	1,37,732	75,175	62,557	73,696	45,035	28,661
50-59	1,91,211	65,106	54,105	80,872	43,141	37,731	38,339	21,965	16,374
60+	95,245	46,971	48,274	63,448	30,950	32,498	31,797	16,021	15,776
Age not stated	720	381	339	579	313	266	141	68	73

TABLE No. 6—POPULATION BY ECONOMIC ACTIVITY ACCORDING TO AGE-GROUPS, THANE DISTRICT, 1971

Total/ Rural/ Urban	Age-group	Total workers		Cultivators	Agricultural labourers	Live-stock, forestry, fishing, hunting, plantation	Mining and quarrying
		Persons	Males	Females			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Total	.. 0-19 ..	1,19,181	80,142	39,039	44,785	39,786	3,360
	.. 20-49 ..	6,28,044	4,84,885	1,43,159	1,84,580	1,09,605	16,490
	.. 50-60 + ..	1,06,352	88,217	18,135	47,793	20,401	3,421
	Age not stated	95	74	21	26	22	1
Rural	.. 0-19 ..	97,949	61,861	36,088	44,450	38,593	2,237
	.. 20-49 ..	4,06,617	2,84,930	1,21,687	1,83,351	1,15,282	10,792
	.. 50-60 + ..	78,765	62,736	16,029	46,219	19,544	2,277
	Age not stated	78	59	19	26	22	1
Urban	.. 0-19 ..	21,232	18,281	2,951	335	993	1,121
	.. 20-49 ..	2,21,427	1,99,955	21,472	3,029	4,203	4,798
	.. 50-60 + ..	27,587	25,481	2,106	1,574	857	1,144
	Age not stated	17	15	2	....	....	....

TABLE No. 6—*contd.*

Total/ Rural/ Urban	Age-group	Manufacturing, processing, servicing and repairs				Construction	Trade and commerce	Transport, storage and communication	Other services	Non-workers
		Household industry	Other than household industry	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1)	(2)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
District Total	..	0-19 ..	1,316	16,094	1,001	6,689	1,207	4,300	9,98,156	
	..	20-49 ..	8,162	1,43,316	11,248	35,886	31,405	63,815	3,19,107	
	..	50-60 + ..	1,972	11,281	1,365	8,560	3,665	7,699	1,08,104	
	Age not stated	....	9	1	6	7	22	625		
Rural	..	0-19 ..	898	6,001	794	2,277	454	1,766	6,39,194	
	..	20-49 ..	4,771	29,001	6,144	12,477	9,057	22,880	1,66,356	
	..	50-60 + ..	1,207	3,039	692	2,224	1,012	2,367	65,455	
	Age not stated	....	5	1	3	1	18	501		
Urban	..	0-19 ..	416	10,093	567	4,412	753	2,534	3,58,962	
	..	20-49 ..	3,401	1,02,745	4,204	23,409	22,308	40,935	1,54,851	
	..	50-60 + ..	755	8,242	973	6,336	2,653	5,332	42,549	
	Age not stated.	....	4	....	3	6	4	124		

TABLE No. 7—CHANGES IN SEX-RATIO, THANE DISTRICT DURING 1971-1901

State/District (1)	Total/ Rural/ Urban (2)	Year							
		1971 (3)	1961 (4)	1951 (5)	1941 (6)	1931 (7)	1921 (8)	1911 (9)	1901 (10)
Maharashtra State	..	..	..	..	..	..	..	..	..
	Total	930	936	941	949	947	950	966	978
	Rural	985	995	1,000	990	987	994	1,000	1,002
Thane District	..	..	..	..	..	..	..	..	..
	Total	820	801	807	810	790	776	796	866
	Rural	..	..	..	..	..	..	..	..
Thane District	..	..	..	..	..	..	..	..	..
	Total	894	919	920	940	935	937	947	939
	Rural	944	964	950	956	953	947	955	944
Thane District	..	..	..	..	..	..	..	..	..
	Total	812	823	851	830	796	851	871	878
	Rural	..	..	..	..	..	..	..	..

TABLE No. 8—CLASSIFICATION OF POPULATION MIGRATED IN THE DISTRICT FROM THE DISTRICTS OF MAHARASHTRA ACCORDING TO PLACE OF BIRTH, 1971

Maharashtra State/Bombay (1)	Rural/ Urban/ Unclassifiable (2)	Total		Rural		Urban	
		Males (3)	Females (4)	Males (5)	Females (6)	Males (7)	Females (8)
All other districts of Maharashtra other than district of enumeration.	Rural	..	61,355	28,560	20,470	53,700	40,885
	Urban	..	83,144	19,400	20,400	64,575	62,684
	Unclassifiable..	375	220	160	40	215	180
Greater Bombay	..	..	34,539	9,000	9,350	23,480	25,189
	Urban	..	..	..	..	..	..

TABLE No. 9—POPULATION, AGE AND MARITAL STATUS IN THANE DISTRICT, 1971

Age-group (1)	Never married		Married		Widowed		Divorced		Unspecified status	
	Males (2)	Females (3)	Males (4)	Females (5)	Males (6)	Females (7)	Males (8)	Females (9)	Males (10)	Females (11)
All ages										
.. Total	6,44,352	5,18,508	5,18,183	4,72,639	20,480	83,098	1,630	2,469	210	95
Rural ..	4,11,756	3,35,649	3,21,265	3,11,591	14,341	57,214	1,190	1,849	20	40
Urban ..	2,52,596	1,82,859	1,96,918	1,61,048	6,139	25,884	440	620	190	55
0-14										
.. Total	4,66,209	4,44,526	1,020	3,921	....	....	....	....	....	....
Rural ..	3,10,124	2,98,487	820	3,381	....	....	....	....	....	....
Urban ..	1,56,085	1,46,039	200	540	....	....	....	....	10	10
15-24										
.. Total	1,58,834	68,051	57,935	1,23,560	340	680	175	704	90	40
Rural ..	84,848	34,634	39,394	82,365	270	480	30	549	10	10
Urban ..	73,986	33,417	18,541	41,375	70	200	45	155	80	30
25-34										
.. Total	31,034	3,936	1,68,455	1,64,802	1,600	3,636	620	805	30	10
Rural ..	12,442	1,401	98,074	1,04,158	1,210	2,561	440	620	....	10
Urban ..	18,592	2,535	70,381	60,644	480	1,075	180	185	30	....
35-64										
.. Total	7,498	1,619	2,71,802	1,74,800	13,100	57,748	750	875	60	25
Rural ..	3,879	859	1,70,783	1,17,885	9,425	40,215	550	630	....	10
Urban ..	3,619	760	1,01,019	56,915	3,675	17,533	200	245	60	15
65 and above										
.. Total	777	376	18,967	5,556	5,361	21,034	85	85	20	10
Rural ..	463	268	12,194	3,802	3,486	13,958	70	50	10	10
Urban ..	314	108	6,777	1,754	1,914	7,076	15	35	10	....

TABLE NO. 10—CLASSIFICATION OF MIGRANTS ACCORDING TO THEIR LAST RESIDENCE, THANE DISTRICT, 1971

Last residence	Rural/ Urban/ Unclassifiable	Migrants		
		Persons	Males	Females
A. Residence in India (I+II).	Rural ..	4,91,460	2,03,430	2,88,030
	Urban ..	3,49,435	1,91,245	1,58,190
	Unclassifiable	5,810	3,785	2,025
(I) Within Maharashtra but outside place of enumeration.	Rural ..	3,93,510	1,37,950	2,55,560
	Urban ..	2,57,480	1,35,970	1,21,510
	Unclassifiable	825	455	370
(a) Elsewhere in the district.	Rural ..	2,82,910	78,370	2,04,540
	Urban ..	49,925	24,655	25,270
	Unclassifiable	260	120	140
(b) In other districts of State.	Rural ..	1,10,600	59,580	51,020
	Urban ..	2,07,555	1,11,315	96,240
	Unclassifiable	565	335	230
(II) Other States in India ..	Rural ..	97,950	65,480	32,470
	Urban ..	91,950	65,480	32,470
	Unclassifiable	4,985	3,330	1,655
B. Foreign countries ..	Total ..	53,810	27,670	26,140
(a) Other countries in Asia	Total ..	46,040	24,605	21,435
(b) Countries in Europe excluding U. S. S. R.	Total ..	95	45	50
(c) Countries in Africa ..	Total ..	160	55	105
(d) Countries in two Americas.	Total ..	45	35	10
(e) Countries in Oceania	Total ..	10	10	....
(f) Unclassifiable ..	Total ..	7,460	2,920	4,540
Total—Migrants (A+B) ..	Total ..	9,00,515	4,26,130	4,74,385

TABLE No. 11—HOUSEHOLDS CLASSIFIED BY SIZE IN THANE DISTRICT, 1971

(1)	(2)	Total number of Census households (3)	Households having number of persons						Number of persons unspecified (10)
			One person (4)	Two persons (5)	Three persons (6)	Four persons (7)	Five persons (8)	Six and more persons (9)	
Thane District	Total	4,01,480	18,455	38,615	50,115	60,780	61,625	1,72,805	85
	Rural	2,50,860	9,400	22,250	29,375	36,770	38,900	1,14,115	50
	Urban	1,50,620	9,055	16,365	20,740	24,010	22,725	57,690	35
Thane City	Urban	31,375	1,825	3,575	4,750	5,725	5,110	10,385	5
	Urban	29,630	1,890	3,200	3,885	4,215	3,925	12,505	10
Ulhasnagar City									

TABLE No. 12—AVERAGE NUMBER OF PERSONS PER ROOM CLASSIFIED BY NUMBER OF ROOMS FOR 1961 AND 1971

(1)	Number of persons per room						Number of persons per household, 1971			
	Total			Urban			Rural			
	1961 (2)	1971 (3)	1961 (4)	1971 (5)	1961 (6)	1971 (7)	1961 (8)	1971 (9)	1961 (10)	1971 (11)
Total	3.46	3.74	2.86	3.36	3.74	3.98	5.43	5.62	5.12	5.12
One room	4.70	5.00	4.27	4.67	4.83	5.19	5.00	5.19	4.67	4.67
Two rooms	2.79	2.92	2.53	2.78	2.94	3.02	5.84	6.04	5.56	5.56
Three rooms	2.29	2.39	2.05	2.12	2.50	2.60	7.17	7.80	6.36	6.36
Four rooms	1.98	2.08	1.84	1.84	2.09	2.29	8.32	9.16	7.36	7.36
Five rooms and above	1.58	1.66	1.58	1.45	1.58	1.84	10.23	11.32	8.99	8.99
Unspecified number of rooms	..	..	..	..	..	..	4.27	4.80	0.90	0.90

TABLE No. 13—STATISTICS OF POPULATION BY MOTHER-TONGUE, THANE DISTRICT, 1971

Serial No.	District/Taluka	Assamese		Bengali		Gujarati		Hindi		Kannada		
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(1)	(2)	(3)		(4)		(5)		(6)		(7)		
Talukas												
1	Thane	..	6	5	685	399	9,423	7,687	20,797	8,373	3,585	2,361
2	Vasai	..	..	..	36	37	5,074	4,462	3,698	1,769	528	360
3	Palghar	..	..	..	33	22	4,874	4,084	2,656	1,615	216	130
4	Dahanu	..	..	2	16	8	12,075	11,747	1,743	1,021	125	88
5	Talasari	..	..	..	1	..	2,635	2,457	133	309	16	10
6	Jawhar	..	..	..	1	..	455	364	234	172	2	11
7	Mokhada	..	..	..	..	..	92	86	57	43	2	1
8	Vada	..	..	..	..	..	128	106	73	49	7	8
9	Bhiwandi	..	1	1	62	7	3,537	2,896	5,979	1,797	775	364
10	Shahapur	..	..	..	13	11	665	597	745	548	143	75
11	Murbad	..	..	..	..	..	207	155	163	158	22	18
12	Kalyan	..	1	..	401	306	8,247	7,174	10,572	5,874	2,913	2,230
13	Ulhasnagar	..	1	1	1,249	847	2,934	2,463	11,785	6,605	3,775	3,060
District Total		..	9	9	2,497	1,637	50,477	44,391	58,738	28,400	12,129	8,716

TABLE No. 13—*contd.*

Serial No.	District/Taluka	Kashmiri		Malayalam		Marathi		Oriya		Punjabi		
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(1)	(2)	(8)		(9)		(10)		(11)		(12)		
Talukas												
1	Thane	..	2	6	4,041	1,824	1,23,301	1,08,837	244	54	1,303	878
2	Vasai	..	..	..	870	573	94,388	91,638	..	..	104	93
3	Palghar	..	..	..	184	75	97,958	95,284	6	5	50	50
4	Dahanu	..	..	..	110	31	79,651	78,146	4	12	60	34
5	Talasari	..	..	..	15	3	23,362	23,626	..	..	25	12
6	Jawhar	..	..	..	6	4	47,256	46,403	..	..	2	2
7	Mokhada	..	..	..	..	..	27,314	26,364	..	..	..	..
8	Vada	..	..	..	46	14	41,015	40,079	..	..	6	11
9	Bhiwandi	..	..	..	916	272	79,773	75,839	8	6	127	66
10	Shahapur	..	3	..	84	15	70,153	66,957	18	16	119	77
11	Murbad	..	..	..	2	..	49,657	47,875	7	6	2	..
12	Kalyan	..	5	4	2,844	2,137	1,03,415	93,887	17	4	760	550
13	Ulhasnagar	..	5	5	3,637	2,276	59,379	53,980	31	16	1,734	1,401
District Total		..	15	15	12,755	7,224	8,96,622	8,48,915	335	119	4,292	3,172

TABLE No. 13—contd.

Serial No.	District/Taluka	Sanskrit		Sindhi		Tamil		Telugu		Urdu		
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(1)	(2)	(13)		(14)		(15)		(16)		(17)		
Talukas												
1	Thane	..	2	1	3,788	35,41	1,887	1,355	2,644	1,882	8,524	6,673
2	Vasai	..	2	4	218	202	162	126	181	151	3,162	2,832
3	Palghar	..	..	..	400	343	76	53	352	211	2,171	2,221
4	Dahanu	..	..	..	55	64	30	8	61	48	968	717
5	Talasari	..	..	..	1	..	4	2	75	59	37	21
6	Jawhar	..	1	..	58	64	13	11	24	22	399	333
7	Mokhada	..	..	..	3	5	1	1	1	..	231	210
8	Wada	..	..	..	16	4	3	..	54	23	864	805
9	Bhivandi	..	..	..	314	232	291	141	8,182	4,463	36,821	22,220
10	Shahapur	..	..	..	168	135	12	7	231	165	1,171	1,057
11	Murbad	..	..	..	24	28	1	2	158	151	489	432
12	Kalyan	..	..	..	754	676	2,692	2,290	1,943	1,590	10,357	8,480
13	Ulhasnagar	..	2	1	55,364	52,842	2,112	1,737	4,025	3,243	4,008	3,369
District Total		..	7	6	61,163	58,136	7,284	5,732	17,951	12,008	69,202	4,9370

Jawhar	..	Total	176	159	24	23	47,385	46,506	29	11
		Rural	109	99	23	22	44,799	44,117	9	5
		Urban	67	60	1	1	2,586	2,389	20	6
Mekhadra	..	Total	423	387	.....	1	26,852	15,918	34	31
		Rural	423	387	.....	1	26,852	15,918	34	31
		Urban	.....	.....	.....	.....	.....	.....	.....	.....
Vada	..	Total	848	844	15	10	40,410	39,407	79	64
		Rural	780	750	6	2	36,649	35,980	44	36
		Urban	68	94	9	8	3,761	3,427	35	28
Bhiwandi	..	Total	3,375	3,084	129	109	94,269	81,506	1,223	996
		Rural	2,874	2,704	71	73	74,476	68,568	104	85
		Urban	501	380	58	36	19,793	12,938	1,119	911
Shahapur	..	Total	3,234	2,994	152	96	67,772	64,372	376	343
		Rural	3,180	2,938	146	92	64,233	61,256	157	140
		Urban	54	56	6	4	3,539	3,116	219	203
Murbad	..	Total	2,943	2,712	11	10	46,581	44,579	179	156
		Rural	2,943	2,712	11	10	46,581	44,579	179	156
		Urban	.....	.....	.....	.....	.....	.....	.....	.....
Kalyan	..	Total	7,214	7,069	3,061	2,521	1,23,193	1,05,727	1,614	1,313
		Rural	3,987	4,115	710	489	47,524	42,004	172	135
		Urban	3,227	2,954	2,351	2,032	75,669	63,723	1,442	1,178
Ulhasnagar	..	Total	4,595	4,404	3,620	2,905	1,36,747	1,20,401	353	261
		Rural	953	991	30	17	22,960	21,667	64	44
		Urban	3,642	3,413	3,590	2,888	1,13,787	98,734	289	217

Jawhar	..	Total	865	688	1	....	13	16	....	....
		Rural	328	273	....	....	1	1	....	....
		Urban	537	415	1	....	12	15	....	....
Mokhada	..	Total	398	362	....	....	1	2	7	4
		Rural	398	362	....	....	1	2	7	4
		Urban	....	....	....	....	....	....	....	....
Vada	..	Total	1,176	1,043	7	11	....	....	....	....
		Rural	774	724	1	....	....	....	....	....
		Urban	402	319	6	11	....	....	....	....
Bhiwandi	..	Total	38,272	22,837	85	38	10	6	44	42
		Rural	10,423	6,899	61	21	3	....	44	42
		Urban	27,849	15,938	24	17	7	6	....	....
Shahapur	..	Total	1,974	1,789	106	110	1	....	1	5
		Rural	1,664	1,527	44	60	1	....	....	....
		Urban	310	262	62	50	....	....	1	5
Murbad	..	Total	1,029	290	1	....	....	....	4	390
		Rural	1,029	290	1	....	....	....	4	390
		Urban	....	....	....	....	....	....	....	....
Kalyan	..	Total	11,678	10,034	397	311	96	124	14	16
		Rural	1,812	1,690	51	26	7	5	5	4
		Urban	9,866	8,344	346	285	89	119	9	12
Ulhasnagar	..	Total	5,045	4,217	4,402	978	21	17	45	32
		Rural	1,072	890	78	....	1	....	45	32
		Urban	3,973	3,327	1,324	978	20	17	....	....

TABLE NO. 15—TALUKA-WISE SCHEDULED CASTE POPULATION,
THANE DISTRICT, 1971

District/Taluka		Total/ Rural/ Urban	Scheduled Castes		
			Persons	Males	Females
(1)		(2)	(3)	(4)	(5)
District Total	..	Total ..	36,170	18,983	17,187
		Rural ..	19,228	9,850	9,378
		Urban ..	16,942	9,133	7,809
<i>Talukas</i>					
Thane	..	Total ..	4,770	2,598	2,172
		Rural ..	877	500	377
		Urban ..	3,893	2,098	1,795
Vasai	..	Total ..	4,014	2,047	1,967
		Rural ..	2,991	1,521	1,470
		Urban ..	1,023	526	497
Palghar	..	Total ..	4,027	2,119	1,908
		Rural ..	3,600	1,920	1,680
		Urban ..	427	199	228
Dahanu	..	Total ..	2,978	1,319	1,659
		Rural ..	2,804	1,220	1,584
		Urban ..	174	99	75
Talasari	..	Total ..	184	77	107
		Rural ..	184	77	107
		Urban ..	..	..	..
Jawahar	..	Total ..	522	274	248
		Rural ..	124	69	55
		Urban ..	398	205	193
Mokhada	..	Total ..	166	91	75
		Rural ..	166	91	75
		Urban ..	..	..	..
Vada	..	Total ..	1,208	641	567
		Rural ..	919	500	419
		Urban ..	289	141	148
Bhiwandi	..	Total ..	2,827	1,493	1,334
		Rural ..	1,948	1,016	932
		Urban ..	879	477	402
Shahapur	..	Total ..	2,588	1,371	1,217
		Rural ..	2,514	1,336	1,178
		Urban ..	74	35	39
Murbad	..	Total ..	1,098	570	528
		Rural ..	1,098	570	528
		Urban ..	..	..	..
Kalyan	..	Total ..	4,512	2,379	2,133
		Rural ..	1,397	729	668
		Urban ..	3,115	1,650	1,465
Ulhasnagar	..	Total ..	7,276	4,004	3,272
		Rural ..	606	301	305
		Urban ..	6,670	3,703	2,967

TABLE No. 16—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
8. Holar	..	12	8	4	5	2	3	7	6	1
	Rural	6	2	4	4	1	3	2	1	1
	Urban	6	6	....	1	1	....	5	5	....
9. Holaya	..	131	72	59	75	31	44	56	41	15
	Total	....	....	....	....	....	....	....	....	....
	Rural	131	72	59	75	31	44	56	41	15
10. Mahar	..	11,287	5,969	5,318	7,280	3,056	4,224	4,007	2,913	1,094
	Total	7,983	4,257	3,726	5,245	2,207	3,038	2,738	2,050	688
	Rural	3,304	1,712	1,592	2,035	849	1,186	1,269	863	406
11. Mahyavanshi	..	1,678	621	1,057	941	317	624	737	304	433
	Total	1,602	576	1,026	885	278	607	717	298	419
	Rural	76	45	31	56	39	17	20	6	14
12. Mang	..	1,624	903	721	1,185	551	634	439	352	87
	Total	405	225	180	295	142	153	110	83	27
	Rural	1,219	678	541	890	409	481	329	269	60
(i) Mang	..	1,474	798	676	1,056	466	590	418	332	86
	Total	389	211	178	282	130	152	107	81	26
	Rural	1,085	587	498	774	336	438	311	251	60
(ii) Mang-Garudi	..	150	105	45	129	85	44	21	20	1
	Total	16	14	2	13	12	1	3	2	1
	Rural	134	91	43	116	73	43	18	18	....

13. Meghval ..	Total	4	4	....	3	3	....	1	1	....
	Rural	4	4	....	3	3	....	1	1	....
	Urban	....	....	....	....	....	....	....	....	....
14. Nadia ..	Total	2	2	....	2	2	....	....	....	....
	Rural	....	....	....	....	....	....	....	....	....
	Urban	2	2	....	2	2	....	....	....	....
15. Pasi ..	Total	72	47	25	46	32	14	26	15	11
	Rural	16	11	5	11	8	3	5	3	2
	Urban	56	36	20	35	24	11	21	12	9
16. Tirgar ..	Total	1	1	....	....	....	....	1	1	....
	Rural	....	....	....	....	....	....	....	....	....
	Urban	1	1	....	....	....	....	1	1	....
17. Turi ..	Total	1	1	....	....	....	....	1	1	....
	Rural	1	1	....	....	....	....	1	1	....
	Urban	....	....	....	....	....	....	....	....	....
18. Unspecified ..	Total	1,929	1,182	747	1,405	754	651	524	428	96
	Rural	591	388	203	448	267	181	143	121	22
	Urban	1,338	794	544	957	487	470	381	307	74
All Scheduled Castes	Total	36,170	18,983	17,187	22,766	9,898	12,868	13,304	9,085	4,319
	Rural	19,228	9,850	9,378	12,046	5,019	7,027	7,182	4,831	2,351
	Urban	16,942	9,133	7,809	10,720	4,879	5,841	6,222	4,254	1,968

TABLE NO. 17—SCHEDULED TRIBE POPULATION, THANE
DISTRICT, 1971

District/Taluka		Total/ Rural/ Urban	Scheduled Tribes		
			Persons	Males	Females
District Total	..	Total ..	5,79,538	2,93,344	2,86,194
		Rural ..	5,61,621	2,84,037	2,77,584
		Urban ..	17,917	9,307	8,610
<i>Talukas</i>					
Thane ..	..	Total ..	11,414	5,785	5,629
		Rural ..	9,134	4,574	4,560
		Urban ..	2,280	1,211	1,069
Vasai ..	..	Total ..	32,304	16,237	16,067
		Rural ..	29,330	14,736	14,594
		Urban ..	2,974	1,501	1,473
Palghar ..	..	Total ..	74,954	38,339	36,615
		Rural ..	72,112	36,805	35,305
		Urban ..	2,842	1,534	1,308
Dahanu ..	..	Total ..	1,21,524	61,238	60,286
		Rural ..	1,18,585	59,687	58,898
		Urban ..	2,939	1,551	1,388
Talasari ..	..	Total ..	47,142	23,280	23,862
		Rural ..	47,142	23,280	23,862
		Urban ..	.....	.....	.....
Jawhar ..	..	Total ..	85,328	42,925	42,403
		Rural ..	83,613	42,074	41,539
		Urban ..	1,715	851	864
Mokhada ..	..	Total ..	50,411	25,584	24,827
		Rural ..	50,411	25,584	24,827
		Urban ..	.....	.....	.....
Vada ..	..	Total ..	40,995	20,736	20,259
		Rural ..	39,076	19,754	19,322
		Urban ..	1,919	982	937
Bhiwandi ..	..	Total ..	28,414	14,528	13,886
		Rural ..	28,089	14,364	13,725
		Urban ..	325	164	161
Shahapur ..	..	Total ..	45,879	23,513	22,366
		Rural ..	45,456	23,303	22,153
		Urban ..	423	210	213
Murbad ..	..	Total ..	23,204	11,961	1,243
		Rural ..	23,204	11,961	1,243
		Urban ..	.....	.....	.....
Kalyan ..	..	Total ..	7,935	4,059	3,876
		Rural ..	7,058	3,596	3,462
		Urban ..	877	463	414
Ulhasnagar ..	..	Total ..	10,034	5,159	4,875
		Rural ..	8,411	4,319	4,092
		Urban ..	1,623	840	783

TABLE No. 18—SCHEDULED TRIBES CLASSIFIED BY LITERACY, THANE DISTRICT, 1971

Name of Scheduled Tribe (1)	Total/ Rural/ Urban (2)	Population			Illiterate			Literate and educated persons		
		Persons (3)	Males (4)	Females (5)	Persons (6)	Males (7)	Females (8)	Persons (9)	Males (10)	Females (11)
1. Barda	..	..	..	..	..	..	..	..	..	..
..	Total	9	4	5	8	4	4	1	....	1
..	Rural	4	4	....	4	4	....	....	....	....
..	Urban	5	....	5	4	....	4	1	....	1
2. Bavacha	..	..	..	..	..	..	..	..	..	..
..	Total	6	4	2	4	2	2	2	2	....
..	Rural	....	....	....	....	....	....	....	....	....
..	Urban	6	4	2	4	2	2	2	2	....
3. Bhil	..	..	..	..	..	..	..	..	..	..
..	Total	221	144	77	119	58	61	102	86	16
..	Rural	175	120	55	94	48	46	81	72	9
..	Urban	46	24	22	25	10	15	21	14	7
4. Dhanka	..	..	..	..	..	..	..	..	..	..
..	Total	2	....	2	....	....	....	4	....	4
..	Rural	2	....	2	....	....	....	2	....	2
..	Urban	....	....	....	....	....	....	2	....	2
5. Dhodia	..	..	..	..	..	..	..	..	..	..
..	Total	6,123	3,099	3,024	5,182	2,307	2,875	941	792	149
..	Rural	5,115	2,592	2,523	4,332	1,917	2,415	783	675	108
..	Urban	1,008	507	501	850	390	460	158	117	41
6. Dubla	..	..	..	..	..	..	..	..	..	..
..	Total	7,975	4,021	3,954	6,858	3,120	3,738	1,117	901	216
..	Rural	6,711	3,393	3,318	5,820	2,662	3,158	891	731	160
..	Urban	1,264	628	636	1,038	458	580	226	170	56
7. Gamit	..	..	..	..	..	..	..	..	..	..
..	Total	41	27	14	25	13	12	16	14	2
..	Rural	24	13	11	16	7	9	8	6	2
..	Urban	17	14	3	9	6	3	8	8	....

TABLE No. 18—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
8. Gond	..	Total ..	133	67	66	82	23	59	51	44	7
		Rural ..	94	48	46	63	19	44	31	29	2
		Urban ..	39	19	20	29	4	15	20	15	5
9. Kathodi	..	Total ..	56,330	28,867	27,463	54,612	27,309	27,303	1,718	1,558	160
		Rural ..	54,215	27,817	26,398	52,603	26,330	26,273	1,612	1,487	125
		Urban ..	2,115	1,050	1,065	2,009	979	1,030	106	71	35
10. Kokna	..	Total ..	33,003	16,207	16,796	28,531	12,435	16,096	4,472	3,772	700
		Rural ..	32,728	16,063	16,665	28,376	12,371	16,005	4,352	3,692	660
		Urban ..	275	144	131	155	64	91	120	80	40
11. Koli Dhor	..	Total ..	5,697	2,954	2,743	5,320	2,605	2,715	377	349	28
		Rural ..	5,462	2,823	2,639	5,130	2,512	2,618	332	311	21
		Urban ..	235	131	104	190	93	97	45	38	7
12. Koli Mahadev	..	Total ..	29,660	15,836	13,824	21,773	9,643	12,130	7,887	6,193	1,694
		Rura ..	8,042	4,984	3,058	20,827	9,277	11,550	7,215	5,707	1,508
		Urban ..	1,618	852	766	946	366	580	672	486	186
13. Koli Malhar	..	Total ..	99,613	49,014	50,599	89,517	40,313	49,204	10,096	8,701	1,395
		Rural ..	95,729	47,013	48,716	86,337	38,853	47,484	9,392	8,160	1,232
		Urban ..	3,884	2,001	1,883	3,180	1,460	1,720	704	541	163
14. Naikda	..	Total ..	587	299	288	554	272	282	33	27	6
		Rural ..	584	297	287	551	270	281	33	27	6
		Urban ..	3	2	1	3	2	1	..	..	..

15. Pardihi	..	Total	..	242	135	107	237	131	106	5	4	1
		Rural	..	80	44	36	78	42	36	2	2	..
		Urban	..	162	91	71	159	89	70	3	2	1
16. Patelia	..	Total	..	15	12	3	6	4	2	9	8	1
		Rural	..	15	12	3	6	4	2	9	8	1
		Urban	..	..	..	..	..	..	..	..	..	..
17. Rathawa	..	Total	..	29	8	21	29	8	21	..	..	..
		Rural	..	29	8	21	29	8	21	..	..	..
		Urban	..	..	..	..	..	..	..	..	..	..
18. Thakur	..	Total	..	75,563	38,462	37,101	70,114	33,846	36,268	5,449	4,616	833
		Rural	..	75,408	38,346	37,062	70,007	33,773	36,234	5,401	4,573	828
		Urban	..	155	116	39	107	73	34	48	43	5
19.. Varli	..	Total	..	2,61,753	1,32,941	1,28,812	2,40,796	1,13,885	1,26,911	20,957	19,056	1,901
		Rural	..	2,54,818	1,29,287	1,25,531	2,34,879	1,11,054	1,23,825	19,939	18,233	1,706
		Urban	..	6,935	3,654	3,281	5,917	2,831	3,086	1,018	823	195
20. Vitolia	..	Total	..	8	7	1	4	3	1	4	4	..
		Rural	..	1	1	..	..	..	..	1	1	..
		Urban	..	7	6	1	4	3	1	3	3	..
Unspecified	..	Total	..	2,528	1,236	1,292	2,310	1,033	1,277	218	203	15
		Rural	..	2,385	1,172	1,213	2,192	991	1,201	193	181	12
		Urban	..	143	64	79	118	42	76	25	22	3
All Scheduled Tribes	..	Total	..	5,79,538	2,93,344	2,86,194	5,26,081	2,47,014	2,79,067	53,457	46,330	7,127
		Rural	..	5,61,621	2,84,037	2,77,584	5,11,344	2,40,142	2,71,202	50,277	43,895	6,382
		Urban	..	17,917	9,307	8,610	14,737	6,872	7,865	3,180	2,435	745



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CHAPTER 4 — AGRICULTURE AND IRRIGATION

AGRICULTURAL POPULATION

THE AGRICULTURAL POPULATION IN THANA MAINLY COMPRISES THE Kunbis, Marathas, Christians and Agris. The quotation, given below from the *Thana District Gazetteer*, of 1882, throws some light on the composition of agricultural population in the district :—

“Except Prabhus, Kasars, Marwar and local Vanis, some members of almost every caste in the district till the soil. The most hardworking and skilful husbandmen are the Christians of Bassein, originally Brahmans, Bhandaris, Chavkalshis, Pachkalshis, Kharpatils and Kolis, who grow sugarcane and plantains, and have turned the light sandy country about Bassein into an evergreen garden. They know well the value of manure and how to make use of every square foot of ground, and, to some extent, observe a rotation of crops. Next to the Bassein Christians come the Kunbis, who form a bulk of agricultural class, and whose perseverance has carved the whole surface of the plain country into embanked rice fields. Their ploughs are only of wood and their tools are of the roughest but the muddy ground is easily turned and the appliances are cheap and effective. During the rainy season the husbandmen's work is very hard, ploughing, planting or weeding all day long in the heavy rain up to the knees in water. They add little or nothing to their gains by the sale of dairy produce, fowls, eggs or vegetables. About equal with the Kunbis are the Christians of Salsette, the Agris who own sweet rice land, the Chavkalshis of Uran, the Ravas of Murbad, the Karadi Kadams of Panvel and the Mahars and Chambhars, whose poverty makes their cultivation inferior. Next come the coast Agris and Son Kolis, who own salt land which requires no skill and very little labour and leaves them all the fair weather to follow their other employments, the Agri his salt-making and the Koli his fishing. Brahmans, Musalmans, Vanis and rich Kunbis and Agris almost always have tenants, and do not themselves hold the plough. The few Baikaris in Vada, the Thakurs in Vada, Bhiwandi, Panvel and Karjat, the Malhari Kolis in Vada, the Mahadev Kolis who hold almost all Mokhada, and the Konkanas of Dahanu come next, and last the Kathkaris, whose poverty and hate

of steady work stand in the way of their becoming good husband-men.”*

Agriculture is the main economic activity in Thane District, as it engages about 53.74 per cent of the total working population either as cultivators or as agricultural labourers according to the 1971 Census.

Within the district, the proportion of cultivators varies from taluka to taluka. Thane, Kalyan, Bhiwandi and Vasai have low proportions because of the higher degree of urbanisation and industrialisation. The proportion of agricultural labourers is larger in Wada and Palghar talukas. Vasai in spite of its garden cultivation, shows a lower proportion because of a large proportion engaged in fishing and forestry.

Table No. 1 gives the number of cultivators and agricultural labourers as per the Censuses of 1961 and 1971 in the district.

The cultivators and agricultural labourers constituted 48.7 and 15 per cent, respectively of the total working population in the district, in 1961. Their percentage, however, was 32.68 and 21.06, respectively in 1971.

RAINFALL

Rainfall is by far the most important factor influencing the agricultural economy of the district as it determines the pattern of crops. The spacing of rainfall perhaps explains the culturable practices currently in vogue in the district.

In Thane district rainfall commences in the month of June and continues till the end of the September. The rainfall is not uniform throughout the district. It is considerably more inland than on the coast. Also it is less towards the north and towards the south. The district, however, receives heavy and assured rainfall. The annual rainfall in Dahanu, Palghar, Bhiwandi, Thane, Talasari, Mokhada, Kalyan and Murbad talukas was less than 2,000 mm. during 1974, while in the rest of the talukas it was between 2,000 mm. and 3,000 mm. during the same year. It was the highest in Wada taluka and the lowest in Dahanu taluka. The average of rainy days in a year was 99. The rainfall is entirely due to the south-west monsoon with the highest intensity in July. With more or less satisfactory rainfall, famine due to scarcity of rain is rare though not unknown.

AGRICULTURAL SEASONS

There are two agricultural seasons in this district, viz., *khari* and *rabi*. However the district has a negligible area under cultivation in

* *Gazetteer of the Bombay Presidency*, Volume XIII, Part I, Thana District, 1882, pp. 301-02.

rabi season. *Kharij* is the main season of this district and stretches from June to October. Paddy is the principal crop while *ragi*, *kodra*, *vari*, *kulith*, *udid* are also grown in this season. Owing to the inadequate irrigation facilities, most of the crops are dependent on monsoon. The first showers of rain in June help the cultivators to proceed with sowing of paddy for its seedlings. Cultivators begin to prepare the soil for transplanting the paddy seedlings in the month of July. Harvesting of paddy commences in the last week of October and is continued till the end of November.

Rabi season commences from October and continues till the end of January. Some pulses like *wal* and gram are grown in this season. They are sown in October and harvested in February-March. Summer rice is also grown but in a very small area. During the rest of the year vegetables are grown wherever the irrigation facilities are available in the district.

SOILS

The three main types of soils are the black coloured soils, occurring on plains, the lighter coloured coarse soils occupying hill-slopes (also known as *varkas*) and black coloured soils along the coast in the district. The coastal soils are further divided into sweet lands supporting the garden crops and the *khar* or saline lands which grow coarse varieties of paddy after partial reclamation. The soil of the district in general is almost neutral in reaction, free from calcium carbonate and is sandy in texture. The colloid complex is low in bases and divalentions account for more than 90 per cent of the total exchangeable bases. The soil is fairly well supplied with nitrogen but is low in phosphate and potash contents.

The soil all along the coast and particularly in parts of Dahanu, Palghar and Vasai talukas, is blackish and contains sand. It is very suitable for garden crops. Towards the east the soil is red and brown. It is not very deep but is suitable for rice. Further east on the hill-slopes, the soil is poor and is used only for growing grass and coarse grains, *viz.*, *nagli* and *vari*. In the valleys there are patches of black soil in Bhiwandi, Kalyan, Mokhada and Shahapur talukas where rice is grown in ample quantity.

As far as agriculture is concerned the soils in the district are mainly classified into three main classes, *viz.*, coastal soils, mid-plane soils and *varkas* type soils. Coastal soils are further sub-divided into *bagayat*, sandy loam and salt paddy soils near creeks. Mid-plane soils are mainly derived from the trap rock and are sub-divided into late soils and mid-late soils. *Varkas* soils are mostly found in the far eastern part of the district.

LAND UTILIZATION AND RECLAMATION

Land utilization : The whole of the district lies on the western side of the Sahyadri ranges and possesses more or less hilly topography. In regard to land utilization agriculture and forest are of prime importance in the district. Besides agriculture, forests occupy a considerable geographical area in the district, viz., 43·1 per cent which is higher than the percentage of 33 as prescribed by the national forest convention.

The pattern of land utilization as it obtained in 1882 is given below from the old *Thana District Gazetteer* of 1882 :—

“Revenue survey returns give Thana, excluding Jawhar, an area of 2,722,088 acres. Of these, 189,682 acres of 6·96 per cent are alienated paying Government only a quit-rent; 1,034,137 acres or 37·99 per cent are arable; 1,030,168 acres or 37·84 per cent forest; 73,801 acres or 2·71 per cent salt pans and salt marshes; 94,412 acres or 3·46 per cent hills and uplands and 299,888 acres or 11·01 per cent village sites and roads. Of 1,034,137 acres, the total Government arable area, 957,934 acres or 92·7 per cent were in 1879-80 held for tillage. Of this 9,591 or 1·001 per cent were garden land; 333,717 or 34·8 per cent rice land and 614,626 or 64·11 per cent dry crop land.”*

The area under cultivation and forest land in Thane district at an interval of ten years from 1880-81 to 1973-74 is given below† :—

(Area in acres)¹

Year	Total geographical area	Forest land	Area under cultivation
1880-81 ..	21,42,894	10,66,649	10,15,603
1890-91 ..	24,15,081	5,27,296	10,32,357
1900-01 ..	22,15,168	6,56,328	9,37,324
1910-11 ..	22,18,155	6,72,911	9,93,948
1921-22 .	21,40,021	8,08,208	9,21,292
1930-31 ..	21,90,168	7,51,052	9,63,468
1940-41 ..	21,94,001	8,57,864	9,76,062
1950-51 ..	24,40,800	9,38,000	7,32,400
1960-61 ..	23,03,100	8,87,400	7,41,600
1972-73 ..	9,33,694	3,68,928	2,38,490
1973-74 ..	9,33,735	3,72,433	2,07,428

**Gazetteer of Bombay Presidency*, Volume XIII, Part I, Thana District, 1882, p. 280.

†*Gazetteer of the Bombay Presidency*, Volume XIII-B, Thana & Jawhar, 1926; Statistical Atlas of Bombay State (Provincial Part), 1950 and Census Hand Books of Thana District, 1951 & 1961.

¹ Figures for 1972-73 and 1973-74 are in hectares.

Table No. 3 gives the taluka-wise statistics of land utilization in the district from 1961-62 to 1973-74.

The total geographical area of the district in 1973-74 was 9,33,735 hectares. The percentage of cultivated area to the total area in the district was about 22.2 but it varied from taluka to taluka, the highest percentage being 40.1 in Palghar and the lowest 0.7 in Thane. The low proportion is due to large forest area and high proportion of barren and fallow lands. The district has two distinct agricultural zones, viz., *bhandarpatti* and *jungalpatti*, the former consisting of lands along the western coast in Dahanu, Palghar and Vasai talukas and the latter of the remaining areas. In the *bhandarpatti* area the predominant crops are plantains, *chiku*, guava, mangoes and betel-leaves, whereas the main crops in *jungalpatti* area are rice, *ragi*, small millets and pulses.

Forest area : The total geographical area of Thane district is 9,553 square kilometres, of which an area of 40.07 square kilometres was under forests during 1973-74. The forests of Thane are very valuable. The proximity of Bombay has added to its value considerably. The forest area in the district falls under three categories, viz., reserved forests, protected forests and unclassed forests. A small area of reserved forests from Junnar taluka of Pune district has been included in the Thane district for convenience of administration. The reserved and protected forests have been solely under the control of the Forest department. The forests in the catchment areas of Tulsi and Vihar lakes and Krishnagiri Upavan belonging to the Bombay Municipal Corporation are unclassed forests and have been transferred to the Forest department since December 1968 for administration.

The area under reserved, protected and unclassed forests in 1974-75 is given below :—

(In hectares)					
Department		Reserved	Protected	Unclassed	Total
District Total	..	2,834.85	982.88	10.40	3,828.13
Revenue	..	....	....	....	....
Forest	..	2,834.85	982.88	10.40	3,828.13

The forests in Thane Circle are divided into three divisions with headquarters at Dahanu, Shahapur and Thane while the Borivali forest is administered by a special sub-division.

Forest produce : The major forest produce in the district includes teak, timber, injaili timber of various species, viz., *ain*, *bibla*, *khair*,

dhavda, *hed*, *kalamb*, *sawar*, etc., and fire-wood and charcoal. The minor forest products include bamboo, grass, *apta* leaves, *tembhurni*, *palas*, *bel*, *tad*, palm, bark of *chilhar* and *ain*, *kadhi patta*, *babul* branches, mohwa flowers and seeds, *hirda* fruits, *karvi*, honey, gum, *vavding*, etc.

Table No. 2 shows the out-turn of major forest products in the district.

There is no *Kumri* cultivation in this district. But there are in-forest cultivation plots in reserved forests given out for cultivation on annual leases renewable every year. All these in-forest cultivation plots are to be given to the occupants permanently as occupants Class II and they would continue as forest villages under the control of the Forest department. Besides, there are some encroachments also. In case of protected forests there are woodland plots, *eksali* plots and those granted under Grow More Food Campaign and so on. Some of the forest encroachments have been regularised and the holders are allowed to cultivate thereon as per Government directives from time to time. These cultivations have caused the honey combing of protected forests. The *eksali* plots and in-forest cultivation plots which belong to the category of encroachments are to be given to the occupants permanently as occupants Class II. The *eksali* plots and encroachments in the forest cultivation plots in the reserved forests and woodland plots and those granted under Grow More Food Campaign will continue under the administrative control of the Forest department even after their permanent grant to the occupants, though such areas are in the midst of the forests and under Revenue department if such areas are bordering the private *maliki* lands.

As mentioned above substantial areas of protected forests and some areas of reserved forests have been realised from time to time for extension of cultivation and for distribution to the landless *adivasis*. These areas have been handed over to the Revenue department for distribution after deforestation.

The climate, rainfall and soil in the district are highly congenial for vegetation growth and there is no area that can be reckoned as desert. The percentage of forest area in the district is higher than the percentage of 33 prescribed by the national forest convention. But the cattle population of 730,655 in the district is such that it puts a heavy strain on the grazing capacity of the forests. The grazing is free and unrestricted and constant trampling of the forest floor during the rainy season prevents not only the germination of seed but also kills the regeneration. This resulted into the sparseness of tree-growth.

Land Reclamation : Land reclamation is an important aspect of the agricultural economy of a coastal district like Thana. The account

about this aspect as described in the former edition of *Thana Gazetteer* is quite interested and hence it is reproduced below.

Two influences, sea encroachments and land reclamations, have for centuries been changing the lauds along the coast. The sea encroachments have been more than met by the land reclamations, which in times of strong Government, have been carried on for centuries and have changed wide tracts of salt into sweet arable-land. The sea has gained on the land at Utan and Dongri in Salsette, along the Bassein coast, and further north at Chikhli, Gholvad, Badapokran, Chinchani, and Dahanu. Of these encroachments the most remarkable are at Dahanu where the sea has advanced about 1500 feet and washed away the remains of an old Government house, and at the mouth of the Vaitarna where, since 1724, four villages have been submerged. Of the land reclamations most have been made in small plots, which after yielding crops of salt rice for some years have gradually been freed from their saltiness, and merging into the area of sweet rice land, have lost all traces of their original state. Of larger works built to keep back the sea, there are embankments to the east of Dahanu near Tarapur in Mahim, at Rai Murdha and Majivri in Salsette, along the Kalyan river, and in parts of Panvel. The Dahanu embankment, which has often saved the town from flooding is a low masonry wall about 300 yards long, built to protect the village site from the tidal wash of the creek. The Tarapur embankment is a similar wall to protect the rice fields.

"Except in the south, where their origin seems to be Maratha, most of these embankments are believed to be the work of the Portuguese, and to have been built partly by the Government and partly by the European settlers to whom the Portuguese Government granted large estates. In this as in other respects, the Portuguese did much to improve the coastal districts. But the facts that the tenure of redeemed salt waste is marked by a special Hindu name, that the spread of this form of tillage was according to tradition one of the chief cares of the Rajaput dynasty of Mahim (1000) (?) (1238) and that in modern times both the Peshwa and Angria encouraged the practice by most liberal concessions, make it probable that the reclaiming of salt waste has been going on at intervals from very early times.

"From the beginning of British rule salt wastes have been granted for reclamation on specially favourable terms. Salt waste is turned into rice land by damming out the tide and sweetening the soil by washing it with fresh water. Rice straw, grass and branch loppings are used to strengthen the mud embankments which are occasionally faced with stone; and the growth of *tivar* and other shrubs that flourish in salt

water is encouraged. Every season before the rains set in, the surface of some of the fields is hoed, and when the rain falls, the clods are carefully broken that they may be well washed by the sweet water. The rain water is kept standing on the land as long as possible. In eight or ten years the higher parts, those formerly least soaked by the tide, will probably be ready for sweet rice, but in some of the thoroughly salted lowlying parts twenty or twenty-five years must pass before there is any return. In such cases the reclaimer knows when his land has become sweet by the falling off of the salt rice crop. In the first season after the dam is complete, attempts are generally made to sow a little salt rice. The seed is soaked in barrels of water, heaped on the ground, and covered with straw on which water is poured. When the seed has begun to sprout, it is sown here and there in the salt land, but for a few years there is rarely any return, as a long break in the rainfall is fatal.

The table No. 4 shows that of a total estimated area of about 93,000 acres of salt waste and salt marsh about 16,500 have been reclaimed and about 76,000 remain available for reclamation."

Reclamation of Khar and Khajan lands: An important feature of the development programme under the five-year plans of this district is the reclamation of Khar lands. There are large areas of lands bordering the sea-coast in Bassein, Palghar, Dahanu and Bhiwandi talukas of the district, which, due to the ingress of salt-water, are rendered completely or partially unfit for cultivation. With a view to providing for the protection of Khar and Khajan lands and their reclamation by construction and maintenance of embankments, the Bombay Khar Lands Act, 1948, was enacted and the Khar Lands Development Board was constituted. The scheme provides for construction of *bunds* to prevent creek-water coming in and for bringing the land submerged under creek-water, under cultivation. The scheme is in force since 1949 and is being executed by the Khar Lands Development Board with the help of the staff of the Revenue department in the district.

The total area of Government Khajan lands in the district during the First Five-Year Plan was 25,997 acres.*

Besides, there was a large area under private Khar lands. The Khar Lands Board laid down a procedure that the land selected for reclamation should be compact block of not less than fifty acres and the cost of reclamation should not exceed Rs. 150 per acre. The reclamation of private and Government Khar lands of 5,650 acres was completed up to 1957-58.

During the Third Five-Year Plan (1961-62 to 1965-66) iron-ploughs were distributed to the agriculturists and 15,603 acres of Khar lands

* *Gazetteer of Bombay Presidency*, Vol. XIII, Part I, Thana, 1882, pp. 281-83.

were reclaimed. The following statement gives the statistics of land reclaimed from 1961-62 to 1973-74 in Thane District :—

Year				Land reclaimed (in acres)*
1961-62	...	...	...	908
1962-63	...	...	...	2,558
1963-64	...	...	...	3,027
1964-65	...	...	...	3,008
1965-66	...	...	...	6,402
1966-67	...	...	...	909
1967-68	...	...	...	644
1968-69	...	...	...	2,400
1969-70	...	...	...	1,600
1970-71	...	...	...	1,314
1971-72	...	...	...	419
1972-73	...	...	...	405
1973-74	...	...	...	1,179

*Figures of reclaimed land for 1966-67, 1967-68, 1971-72 and 1973-74 are in hectares.

HOLDINGS

The old *Gazetteer of Thana District* has given the following information about the size of holdings in the district :—

“In 1878-79 the total number of holdings in Government villages including alienated lands, was 90,809 with an average area of 11½ acres. Of the whole number 52,678 were holdings of not more than five acres ; 13,602 of not more than ten acres ; 11,982 of not more than twenty acres ; 9,057 of not more than fifty acres ; 2,335 of not more than 100 acres ; 722 of not more than 200 acres ; 150 of not more than 300 acres ; 110 of not more than 400 acres ; twenty-four of not more than 500 acres ; twenty-five of not more than 750 acres ; seven of not more than 1,000 acres ; seven of not more than 1,500 acres and two above 2,000 acres.”*

The portion of land available for cultivation and the number of persons entitled to share it have a direct bearing on the problem of fragmentation of holdings. The latter depends, in the main part, on the system of land tenure prevalent. The Khoti system of tenure, for example, has had an adverse effect in the past on the size of holdings which appears to have been further aggravated by laws of inheritance and succession applicable to Hindus and Muslims. The average size of holdings has in the course of years showed itself attenuated.

**Gazetteer of the Bombay Presidency* Vol. XIII, Part I, Thana District, 1882.

Prevention of Fragmentation and Consolidation of Holdings : The extremely uneconomic size of holdings is the problem of a general nature and in all probability finds its root in the sub-division of land arising out of the laws of inheritance and succession of the Hindus and the Muslims. Dwarfed and scattered holdings have since long been recognised as a dead-weight on the clock of agricultural progress without any effective measures being initiated to set right this problem till Independence. The Government passed an enactment entitled "The Prevention of Fragmentation and Consolidation of Holdings Act, 1947" which was made applicable to this district from June 1957. The consolidation scheme was specifically made applicable to certain villages from Thane and Kalyan talukas.

The prime considerations in prevention of fragmentation and consolidation of holdings are to determine the standard area on the basis of economic size of a holding and to consolidate uneconomic holdings into viable plots. The standard area at different places may vary in accordance with the productivity of soil and the cost of cultivation. The standard areas specified as minimum necessary for profitable cultivation under the Prevention of Fragmentation and Consolidation of Holdings Act are as follows :--

			Acres
(i) Dry crop and <i>varkas</i> land	...	...	2.00
(ii) <i>Bagait</i> and rice land	...	...	0.50

CO-OPERATIVE FARMING

Co-operative farming is an important aspect of the agrarian economy as it overcomes the drawbacks and obstacles raised by sub-division and fragmentation of agricultural holdings and the utter poverty of the small land-holders and landless labourers. The various types of co-operative farming societies in the district are described below :--

Co-operative Collective Farming Society : Co-operative collective farming societies are organised by acquiring large areas of land on lease either from the land-holders or from Government. The members of such societies necessarily belong to the class of landless labourers who do not enjoy any proprietary rights in land. These societies provide a means of subsistence to the members.

Joint Co-operative Farming Society : This type of society envisages pooling together of land belonging to small land-holders whose individual holdings do not allow economic and efficient cultivation. Members work on the pooled land jointly and receive wages for their labour. The ownership of each member in his holding is recognised by payment of a dividend or rent in proportion to the value of land.

Co-operative Tenant Farming Society: A co-operative tenant farming society provides its members with facilities such as finance, implements, seed, etc. The society owns land or gets it on lease, but it does not undertake farming. The land is divided into blocks and each block is given on rent to a cultivator who cultivates according to the plan laid down by the society.

Co-operative Better Farming Society: A better farming society could be said to form the basis of the co-operative farming programme in this district. Its main object is to educate and to prepare the farmers to accept the new system of farming. For this, it organises demonstrations of improved methods of agriculture, use of improved seeds, manures and implements. Besides this, a number of other activities such as disposal of farm produce at reasonable prices and purchase of agricultural inputs are also undertaken. Under this type of co-operative farming the ownership and management of land rest with the individual.

In pursuance of the policy of Government to encourage organisation of co-operative farming societies, the scheme was originally started in 1949.

In 1950-51, there were only six co-operative farming societies having a membership of 103 ; with share-capital of Rs. 7,950 ; working capital of Rs. 13,345 ; and Government loan to the extent of Rs. 14,000 in Thane district. The number of co-operative farming societies increased from 6 to 17 in 1955-56, out of which one was a joint farming society, while twelve were co-operative collective and four were tenant farming societies. These societies together had a membership of 970, with share-capital of Rs. 57,085 ; working capital of Rs. 2,32,820 ; and Government loan of Rs. 98,615.

Due to the strong support extended to the co-operative farming societies by Government, the number of societies increased to 20 in 1961 in the district. Of these, two were joint farming, ten collective farming, five tenant farming and three Gram-Swarajya societies.

Table No. 5 gives the taluka-wise statistics of co-operative farming societies in Thane district during 1967-68.

The number of co-operative farming societies in the district increased to 30 in 1969-70 having membership of 1,020 ; share-capital of Rs. 2,42,000 ; working capital of Rs. 5,73,000 and reserve and other funds Rs. 1,17,000. The area cultivated by these societies was 31,000 hectares during the same year. At the end of 1971-72 there were forty-three co-operative farming societies having a membership of 1,269. The land under the command of these societies was 1,600 hectares, of which an area of 400 hectares was under cultivation. The societies have provided loans and grants amounting to Rs. 1,74,125 during the decade 1961-62 to 1971-72. It may, however, be observed that the progress

made by the co-operative farming societies has not been satisfactory in the district.

The following statement gives the statistics of co-operative farming societies in Thane district during the year 1975-76 :—

STATISTICS OF CO-OPERATIVE FARMING SOCIETIES IN THANE
DISTRICT DURING 1975-76

Item	Particulars
Joint farming societies ...	1
Collective farming societies ...	19
Membership (Total) ...	900
Share-capital (Rs. in lakhs) ...	2.05
Government (Rs. in lakhs) ...	0.21
Working capital (Rs. in lakhs) ...	14.3
Owned funds (Rs. in lakhs) ...	4.25
Area covered (in hectares) ...	1,000
Area cultivated (in hectares) ...	500
Value of agricultural produce (quantity in tonnes).	3,000
Number of societies in profit ...	5
Amount of profit (Rs. in lakhs) ...	0.24
Number of societies in loss ...	12
Amount of loss (Rs. in lakhs) ...	0.24

CEREALS

Cereals occupied nearly 80 per cent of the gross cropped area in the district during 1973-74. The important cereals grown in the district are rice (*bhat*), *ragi* (*nagli* or *nachani*), *vari* and *kodra* (*harik*). Other varieties are grown only on a small scale in the district. As compared to the State averages the district has a very high proportion of area under cereals and extremely lower proportion under pulses, sugarcane and other food-crops. Table Nos. 6 and 7 give the statistics of area and out-turn of principal cereals in the district.

Rice: Rice (*bhat*) is the most important crop in the district. It occupied an area of 1,37,508 hectares in 1973-74. The district is known as a granary of rice. The average yield of rice in the district is also much more than the State average. Rice predominates in every taluka except the hilly tracts of Mokhada and Jawhar where more than half the gross cropped area is covered by *ragi* and other millets. Rice is largely grown in Palghar, Dahanu, Bhivandi, Bassein, Murbad, Wada, Kalyan, and Shahapur talukas. These talukas are known as Konkan rice bowl.

"The first step in rice cultivation is to manure the land in which the seed is to be sown. A cultivator in the opener parts is obliged to sow his rice in his field, but where he has upland, *varkas*, near, he sows it in a plot of sloping land close to his field. The nursery is manured in March or April, or even earlier, by burning on it a collection of cow-dung and branches or grass covered with earth, to prevent the wind blowing the ashes away. At the same time the earthen mounds, *bandhs*, round the fields are repaired with clods dug out of the field with an iron bar, *pahar*. Early in June, when the rains begin, the seed is sown and the seed-bed ploughed thoroughly. The field in which the rice is to be planted is then made ready, and, after ploughing, is smoothed with a clumsy toothless rake, *alvat*. After eighteen or twenty days the seedlings are fit for planting. All are pulled up and planted in the field in small bunches, *chud*, about a foot apart. In August the field is thoroughly weeded. Through June, July and the early part of August, the rice can tolerate heavy rains; but, in September and October, the husbandmen like to see short showers with gleams of sun. Scanty rain leaves the ears unfilled, while too much rain beats the rice into the water and rots it. By the end of October the grain is ripe and is reaped with a sickle, *vila*, gathered into large sheaves, *bhara*, and carried to the threshing floor, *Khale*, and piled in heaps. At the threshing floor much of the grain is beaten out of the sheaf by striking it on the ground; what remains is trodden out by buffaloes tied to a pole, in the centre of the threshing floor. The empty grains are separated from the full grains by pouring them from a winnowing fan on a windy day There are two great divisions of sweet rice, *halva* which wants little water and ripens between August and October, and *garva* which requires a great deal of water and does not ripen till November. Of early, *halva*, rice there are eight or ten kinds, but, as they are generally eaten by the grower, they do not come much into the market, and are called by different names in different parts of the district. Between the early or *halva* and the late or *garva* classes are four or five medium kinds which ripen before *Divali* (October-November). Of these, three may be mentioned; *mahadi* with a yellow husk and reddish grain; *halva ghudya* with a yellow husk; and *patni halvi* with a white husk. Of late, or *garva*, rice there are more than a dozen kinds, and, their names vary little in different parts of the district. The best known varieties are: *garva ghudya* with a yellow husk, *dodka*, *garvel*, *ambemohor*, *dangi* with a red husk, *bodke* very small and roundish *garvi patni*, *tambesal* with a red husk and white grain, *ghosalvel*, and *kachora* with a purplish husk and white grain. The prices of these different varieties change according to the season. The tillage of salt rice differs greatly from the tillage of sweet rice. The land is not ploughed, no wood

ashes are used, the seed is sown broadcast on the mud or water and left to sink by its own weight, and the seedlings are never planted out. salt rice ripens in November along with the late sorts of sweet rice. It has to be carefully guarded from salt-water and wants a great deal of rain. The straw is not used as fodder but burnt as ash manure. The grain is red and comes much into the market, being greatly eaten by the poorer Kolis and Kunbis as it is cheap and strengthening. Salt rice is of two chief kinds, *munda* and *Kusa*.”*

The department of Agriculture has recommended the improved strains of paddy for Thane district which are *Kolamba-42*, *Kolamba-540*, *Zinnia-149*, *Zinnia-31*, *Kada-68-1*, *Bhadar-1303*, *Garvel-1-8*, and early *Kolpi-70*. Besides some more strains, viz., *E-k-70*, *Z-63*, *Z-14*, *IR-8*, *Taichung* and *Ratnagiri-24* have been recommended for the district. For saline lands in the district the recommended strains of paddy are *Kala-Rala-1-24* and *Bhura-Rala-4-10*.

Japanese method of paddy cultivation : Of the above methods of paddy cultivation some are still prevalent in the district. But now-a-days the introduction of the Japanese method of paddy cultivation marks an important development in the process of paddy cultivation. The main features of this method, in brief, are as follows :—

- (i) raised nurseries for seedlings ;
- (ii) low seed-rate for nurseries ;
- (iii) heavy manuring of the crop, both in nurseries and in fields ;
- (iv) transplantation of fewer seedlings per bunch ;
- (v) transplanting in rows ; and
- (vi) adequate inter-culturing and proper weeding.

The Japanese method of paddy cultivation was first introduced in this State at Kosbad by Shri Harishchandra Patil who has done pioneering work in the field of agricultural research and propagation. The campaign of propagating this method was launched in the district in 1953-54. The campaign laid emphasis mainly on demonstrations of various operations involved in the Japanese method at different places by calling meetings or holding camps. In addition to this, *tagavi* grants were also made available to the cultivators for practising this method. Intensive propaganda by way of holding meetings, arranging talks and dramas, giving publicity by posters and films, etc., has also been undertaken. The results of these demonstrations showed that on an average the cost of cultivation by the application of Japanese method becomes less than that of the local method. The average yield per acre is much higher than the local method. With this in view a pilot

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scheme has been launched in the district, whereby the required fertilisers and crop finance are made available to cultivators in time through co-operative societies. Cultivators have begun to realise the importance of this method and some of them have already taken up to it, although the pace of progress in this direction appears to be very slow due to the illiteracy and the strong hold of the indigenous method of cultivation on the mind of cultivators.

By the end of the First Five-Year Plan 35,721 acres of area was brought under this method. In 1956-57 an area of 30,300 acres was cultivated under this method.

Due to the introduction of the high-yielding varieties of paddy and their new and different methods of cultivation, the Japanese method of paddy cultivation has now become out-of-date in this district.

Nagli, Nachni or Ragi : *Nagli* or *Nachni* (*ragi*) held the second place, with 18,513 hectares or 11 per cent of the total area under cereals in 1973-74 in the district. It is the principal crop grown on hills and *varkas* land and is always cultivated as a first crop after a fallow. *Ragi* is grown in almost all the talukas in the district but more particularly in the Mokhada and Jawhar talukas, which together occupied an area of 12,864 hectares of the total area under *ragi* in 1973-74.

Ragi is entirely a rain-crop. The land is broken up for cultivation. On hill-slopes, soil is cleared of brush-wood which, with other available rubbish such as cow-dung, grass etc., is burnt to serve as manure. Seeds are sown at the rate of 2½ kg per acre after the surface is smoothened and sufficiently wetted under rains. In a month's time, seedlings are broadcast on the soil ploughed twice. The crop is hand-weeded once and superfluous seedlings are thinned out. The crop does not require any special care till it is ready for harvest. Harvesting is done in October by plucking ear-heads which are then threshed under bullock's feet and the seeds are separated. The average yield of the crop varies from 772 to 963 kg. in the district. There are about twelve varieties of *nachni*, half of them *halva* or early ripening and the rest *garva* or late ripening. The *halva* varieties ripen by about September and the *garva* by the end of October.

The ripe grain is used for preparing bread and *nachni* flour in making a cooling drink, called *ambil*. Green heads are parched and eaten as *hurda*. *Nachani* is said to be very nutritious, even more so than wheat. The straw is used as fodder after powdering and mixing with chaff.

Vari : *Vari* held the third place with 11,340 hectares or 6.7 per cent of the total area under cereals in the district in 1973-74. It is

always grown after *nachni* and on level soils, *bhatli* or *mal*. It is a hill-millet and is entirely a *kharif* crop, in the sense that it is never irrigated. It is cultivated in the same manner as *nachni*. It has two varieties, both of which ripen about the end of October. It is a poor food-crop and a worthless fodder. It is cooked like rice and sometimes ground into flour, and used for preparing bread, and as such is largely demanded by poorer classes. Its straw is inferior and used for burning the land as a *rab* material.

Kodra: Kodra (*Harik*) occupied a small area of the total area under cereals in the district. It grows both on flat land or on steep slopes of hills and is raised in Dahanu, Palghar and Talasari talukas of the district. It follows *vari* and does not require the soil to have brush-wood burnt on it. To obtain best results, the land which is mostly *varkas* or hill land, is ploughed four times after the first rain-fall and seed is broadcast at a rate of 15 to 20 lb. per acre and covered thereafter. The crop is sown in July. It is once weeded by hand and harvested by the end of October. It is cut close to the ground with a sickle and tied into bundles of sheaf size, exposed to the sun for a week and is then stacked. It is threshed under the feet of bullocks. As the newly-harvested grains possess narcotic properties, the latter are neutralised in a mixture of cow-dung and water before the former are ground. Kodra is eaten by the poorer classes only, who prefer it in various ways and from repeated use are able to consume it with impunity.

Jowar: Jowar (*jvari*), the Indian millet, occupied a very small area, i.e., 355 hectares in 1973-74 and is grown only in a few talukas, viz., Dahanu, Palghar, Talasari, Jawhar and Mokhada in the district.

PULSES

The district grows various kinds of pulses, chief among them being *udid* (black gram), *tur*, *val*, *harbhara* (gram), *chavali*, *kulthi* (horse gram), *mug* (green gram), etc. Pulses occupied an area of 11,543 hectares or 5 per cent of the gross cropped area in 1973-74 in the district. Table Nos. 8 and 9 give taluka-wise area and out-turn of principal pulses in the district.

Udid (black gram): It occupied 5,141 hectares or 44.3 per cent of the total area under pulses in 1972-73. It is grown in all parts of the district but especially in Jawhar, Mokhada. Murbad and Shahapur talukas. It is generally grown after the rice-crop has been reaped, but it is also sometimes sown in August in rice-fields in holes made between the standing rice plants. It is sown on red loams, light red or brown alluvial soils and on soils which are not shallow. The fields are prepared by two ploughings and clods of earth broken by

means of wooden log, as *udid* requires a fine seed-bed. Seeds are generally broadcast or sown about ten inches apart by seed drill. Inter-culturing is given in about three weeks with tooth hoe or blade hoe. No manure is used. The late crop ripens by about March.

Tur : *Tur*, grown throughout the district, occupied a second place as regards the area under pulses in 1973-74. It is grown as an early crop in uplands after *nachni* and *vari* and also a dry weather crop in the rice-fields. This crop is generally sown in June-July and becomes ready by February-March. It is seldom irrigated, as it gets moisture from the soil due to its deep penetration in it. Seeds are dropped at the rate of 6 kg. per acre into the furrows usually by hand and the latter are then covered, as the sowing is in progress. The crop, when raised in combination with other crops, is grown in rows about six inches apart, the space between the two rows being occupied by the principal crop, generally paddy. In poor soils plants are left about six inches apart; while in deep soils, under good conditions, they are thinned out from a foot to one and half feet. *Tur* plants exhibit slow growth till the cereal crop is harvested. But thereafter, they are seen to grow very vigorously. The crop is then left to take care of itself and no weeding or inter-culturing is necessary. Flowering goes on continuously for over two months, while flowers and green pods are seen on the plants at the same time. The crop is harvested from January onwards. In March, plants are cut, tied into bundles and transported to the threshing floor and beaten with long sticks to break open the pods. *Tur* raised in the district consists of red or light brown seeds. The average yield of this crop is 400 kg per acre in the district. The crop is favourite among the cultivators as it has the highest demand and it serves as a restorative rotation crop. It resists drought to a remarkable degree, and in deep soils, continues to thrive right through the *rabi* season, though sown usually in June. It adds to the nitrogen contents of the soil due to its being a legume.

Val : It occupied 758 hectares of area under pulses, during 1972-73 and is grown throughout the district. It is an important crop like *udid* and is sown in the standing rice crop between the plants. The crop is taken as a *rabi* crop or as a second crop in rice-fields. It is damaged by heavy rains, cloudy and cold weather when flowers begin to fall off and fertilisation fails to take place. Land is ploughed repeatedly for three or four times. Seeds are dropped at the rate of 30 kg per acre in furrows through a single tube attached to the plough. Two varieties of *val* are grown in the district, viz., *goda* and *kadva*. By the time paddy is reaped, the *val* plant reaches a height of six to nine inches. This facilitates the growth and early maturity of the crop by about a month. But usually *val* is sown in November and harvested in March. The

crop becomes ready for harvest in 130 to 150 days. The average yield of this crop is 400 kg per acre in the district. Generally pods are plucked, as they become mature. If the soil holds moisture sufficient to ripen the crop, plucking is undertaken which goes on for about two months. Ripe plants are cut close to the ground with sickles and taken to the threshing floor where they are dried under the sun and then beaten with sticks to separate seeds. Similarly pods are threshed under a stone-threshing-roller. In highly assessed garden land, *val* is sometimes taken as a catch crop, when the opportunity occurs, it is sown immediately after the harvest of the previous crop and, if this is done, the moisture retained by the soil is sufficient to bring *val* to maturity. The crop ripens in February-March.

Gram (Harbhara) : It occupied 1,053 hectares of land in 1973-74, and is grown in almost all the talukas in the district. It is grown as a *rabi* crop, usually after rice. After the rice crop is harvested, fields are ploughed once or twice, the seeds are broadcast at the rate of 30 to 35 kg. per acre and covered with earth. Before the plants begin to flower, their tops are plucked off to render the growth strong and bushy. They mature in about three months. The leaves become reddish brown and dry and are shed in the fields. The plants are pulled out and carted to the threshing floor. They are stacked for about a week, dried and trampled under the feet of oxen or beaten with sticks to separate the seed. The average yield of this crop is 500 kg per acre in the district. The department of Agriculture has recommended the improved strain, viz., *chafa*, which is an early maturing and a high-yielding variety.

Chavali : It is raised as a *rabi* crop and occupied an area of 871 hectares in 1972-73 in the district. It is grown throughout the district as a *rabi* crop. As the crop is grown along with paddy it gets a well-prepared soil. It is sown in rows about six feet apart by broadcasting the seed. The crop flowers in six weeks and during the same period the pods are ready to be picked up. When the pods are fully ripe, the plants are uprooted and taken to the threshing floor where they are stacked for about a week and beaten with sticks or trampled under bullocks' feet.

Kulthi (Horse gram) : It is grown to a small extent in Jawhar, Mokhada and Murbad talukas. It occupied 396 hectares of area in 1972-73. It is sown in November after the rice-crop has been cut and is harvested in the beginning of March.

Mug (Green gram) : It is grown to a very small extent in Palghar, Talasari and Murbad talukas. It occupied 37 hectares of area in 1972-73. It is grown both as a rain-crop in sandy soils and as a cold-weather crop in low water fields.

DRUGS AND NARCOTICS

Betel-leaf (*nagvel pan*) is the only crop from the group of drugs and narcotics which is grown in *bhandarpatti* area of Bassein and Palghar talukas. The area under cultivation of betel-leaves was very small, viz., 298 hectares in 1961-62 and 320 hectares in 1964-65 in the district. Of this, Bassein accounted for 247 hectares in 1961-62 and 267 hectares in 1964-65, respectively. The rest of the area was in Palghar taluka.

Betel-leaf : It is a purely garden crop grown only for its leaves and is obtained from a creeper known as *panvel* or *nagvel*. In Thane district, the crop is grown on a soil which is free from salt, stones, damp, and hardness. In December or January shoots are planted in well-watered pits, regularly watered and manured afterwards. By the end of June the plants attain a considerable height and they are unfastened from their supports, allowed to droop to within a foot from the ground and the side-shoots are gathered into the pits and covered with earth so as to produce new roots. Manure is again applied to each pit and the main stem is again bound to the reeds and staked. A second thatched booth is reared over the first in September and the creeper is trained up its posts and allowed to climb over the roof. The leaves are ready for cutting after twelve months and yield a steady crop for another year, after which time the vine is cut down and young shoots planted in another place. Hoeing, weeding and manuring is essential after an interval of three months. The vines continue to bear for twenty to thirty years if they are properly maintained. The leaves are picked together with the petiole. For this purpose a sharpened steel nail is fixed by the picker on his right thumb with which he cuts off the leaf from the stem. The cultivation of betel-vines is very costly and requires adequate financial strength, but on the other hand being a cash crop it yields profitable dividends.

CONDIMENTS AND SPICES

Condiments and spices grown in the district are betel-nut, chillis, ginger, turmeric, coriander, garlic and fenugreek. The important among them are chillis and betel-nut, which together occupied an area of 961 hectares in 1972-73 and 878 hectares in 1973-74. Ginger, turmeric, coriander, garlic and fenugreek are the minor condiments and spices which occupied very small area in the district. Table Nos. 12 and 10 give the taluka-wise area and out-turn of principal condiments and spices, respectively, during 1961-62, 1964-65 and 1967-68 in the district.

Chilli (*Mirchi*) : It occupied an area of 734 hectares or 76.4 per cent of the total area under condiments and spices in 1972-73 in the

district. Chillis are grown all over the district, a large area, viz., 268 hectares in 1972-73, being found in Murbad taluka. It is grown on a soil free from grit, gravel and stones. This crop can be taken over a wide range of climatic conditions and in soils that are well-drained and fertile. It is a dry weather crop raised by irrigation. The seed is sown in well-manured seed-beds in November-December and when about a month and half old, the seedlings are planted in rice or late crop land. Three or four seedlings are planted together. The distance between two rows and between two plants should be about two feet. When the plants have established themselves, it is necessary to cover up the roots and part of the stem with soil. Under normal conditions plants begin to yield chillis after about three months from planting. Picking goes on for three to five months. The irrigated crop lasts longer than the unirrigated one. Picking of green chillis is done at an interval of about ten to fifteen days while that of ripe ones, three or four times during the entire season. They are then dried in the sun. Chillis are of two varieties, viz., the common long, narrow variety which tapers at the end and the *lavangi*, which is short and has a pungent taste.

Betel-nut or areca-nut (supari) : It stands next in importance to chillis among condiments and spices grown in the district, and occupied 69 hectares of land in 1972-73. It is grown chiefly in garden lands of Bassein and Palghar talukas of the district. In October the gardeners choose the best nuts, dry them in the sun for three or four days. They then pulverise a plot of land, clean it, and dig pits three inches deep and three inches wide about a foot apart from one another. In each pit a nut is planted. For the first three months the young palm is watered at least every fourth day, and afterwards every third day. Common plants take one full year and the best plants take a year and a half, before they are fit for transplanting.

The betel palm usually grows in red soil, but it flourishes better in sandy soil which retains moisture for some time after the rains. Before planting the young palm, the ground is ploughed and levelled if it is uneven. When the field is ready a water channel, *pat* or *sarani*, is dug six inches deep and a foot and a half wide. Then pits, nine inches deep and two feet wide, are dug at least four feet apart, nearly full of earth but not quite full so that water may lie in them. In planting the young palm the gardener takes great care to save the root by lifting a clod of earth with them and losing no time in burying and watering them. Wherever possible, plantains are grown in the beds so as to provide shade for the young delicate palms. Where plantains will not grow, coconut palm leaves are used for providing shade. The seedlings of betel palm are called *kavatis* while the plants fit for transplanting

sargads and those ready to bear fruit *pokatis*. When fully grown the smooth light stem rises to a height of forty to sixty feet. Except during the rainy season, the young trees are watered every second day for the first five years, and after that every third or fourth day. During the rains the Bassein palm-growers enrich the ground by applying manure or compost.

Betel-nuts are harvested just before they are fully ripe. Regularly watered trees yield nuts when they are five years old, other trees at six or seven. They bear for twenty to forty years, their yearly yield varying from 150 to 1,250 nuts. Besides the ordinary betel palm, a few trees yield a highly prized sweet nut known as *mohachi supari*. The betel-nut growers sell the fruit on a wholesale basis to the *Vanis*. The nuts are given specific treatment by them and then clarified into six different categories, viz., *phul-bardi*, *tambdi*, *chikni*, *lavangchur*, *pondhari* and *dagdi*.

OIL-SEEDS

Oil-seeds occupied 4,001 hectares of area in the district in 1972-73 and 3,950 hectares in 1973-74. Coconut and sesamum were important among edible and niger-seed among non-edible oil-seeds. Table Nos. 13 and 11 give taluka-wise area and out-turn of principal oil-seeds in 1961-62, 1967-68 and 1972-73 in Thane district.

Sesamum (til) : It is grown all over the district and covered an area of 477 hectares in 1972-73 in the district, Murbad, Kalyan and Bhivandi talukas together occupied 51 per cent of the area under oil-seeds in the district in 1972-73. The varieties grown in the district are black and white. Black *til* is generally grown after *harik* crop and can also be grown after *nachni* and *vari* but does not give good yield. It is sown in June and ripens by about November and thrives well on flat land. Fields are treated with repeated ploughings. The seeds sown are drilled in rows about 1' to 1½' apart. When the leaves become yellow the crop is said to be ripe. When ripe, the plants are cut within 2' to 3' of the soil, collected in bundles and allowed to dry. The seed capsules split open and the seeds are extracted by beating the plant against the ground. Black *til* yields an oil which is used both in cooking and medicinal preparations. The white seeded variety is grown after rice in the same way as black *til*.

Coconut (Naral) : Next to sesamum, coconut is an important oil-seed crop in the district which occupied an area of 175 hectares in 1972-73. The coastal areas of Palghar, Bassein, Dahanu and Thane talukas are the main centres of coconut cultivation, of which Dahanu and Palghar covered nearly cent per cent of the total area in 1972-73. It thrives best in light sandy soil within reach of the sea breeze.

The seedlings of coconuts are prepared in different ways. The best and the oldest tree in a garden is set apart for growing seed coconuts. The fruits take about 7 to 12 months to dry on the tree. When dry, they are taken down generally in April or May or let to drop. After the fruits are dry, they are sometimes thrown into a well and are left there for three months after which they sprout. They are also buried immediately after they have fallen and the fruits are seen to sprout 4 to 6 months after burying. When the seedlings are about one or two years old, they are fit for planting.

In planting the seedling, they are set about six feet apart in pits with the depth of about two feet. The pits are treated with manure and the garden is very carefully fenced to keep off the cattle. The plants are then watered after two days during the first year and after three or four days for two more years. Watering is then stopped though some gardeners continue it for some years. For two years after planting, the young trees are shaded by palm leaves or by growing plantains. From its fifth to tenth year, a ditch is dug round and raised to keep the water from running off during the rainy season. In the ditch powdered dry fish manure is sprinkled and it is covered with dry earth and watered if there is no rain at that time. The plants thrive well on fish manure coupled with compost manure mixed with ashes.

A well manured and watered tree, in good soil, begins to yield when it is about five years old and in inferior soil, after about eight years. A palm varies in height from 50 to 100 feet and continues to yield till it is 80 and lives over 100 years. The harvest of coconuts consists of plucking nuts or in cutting the bunches of fruits. The harvest is sometimes carried out twice a year in April-May and in October. In some parts coconuts are harvested four times a year and in some six times a year.

Coconuts are not generally planted mixed with any other crop. But in gardens they are grown alongwith other trees like arecanut, jackfruit, mangoes, etc. Growing of other trees is not advisable as it hinders the growth of plants. During the first few years, catch crops of grain or pulses may be taken. Many varieties of coconut are grown in the district.

In this coastal district a coconut tree is a great boon to the peasants who utilise its leaves, trunks as well as fruits in every possible manner.

Nigerseed (karale) : This non-edible oil-seed crop is grown all over the district on the uplands, often on poor stoney land where it is taken in rotation with coarse millets. The land is neither ploughed nor manured. The soil up to a depth of about two or three inches is brought into a fine state of tilth, which becomes the capital seed-bed with the first monsoon showers. The seed is sown in rows about a foot apart

at a rate varying from four to six pounds per acre. The young seedlings have to be thinned properly. Except loosening and weeding the soil the crop does not require any special care. A well-branched plant produces more seeds than several straight unbranched plants. It is usually grown as a mixed crop, followed or preceded by the same crops as are grown in rotation with the main crop. It is grown with *ragi* crop. The crop is ready for harvest by December. When ripe, the plants are cut by sickles and dried in the sun. The seeds are beaten with sticks.

Other oil-seeds : The other oil-seeds which include groundnut rape seed, safflower, linseed and castorseed occupied 3,186 hectares of area in 1972-73 in the district. Groundnut is grown in Dahanu, Palghar, Jawhar, Mokhada and Talasari talukas, while safflower in only Dahanu and Palghar talukas and castorseed in Dahanu, Palghar, Talasari and Bassein talukas.

FRUITS

Fruits are mostly grown in the coastal areas (*bhandarpatti*) in Dahanu, Palghar, Bassein and Talasari talukas. The important fruits grown in the district are bananas, mangoes, guavas, *chikus* and pomegranates. They occupied an area of 2,533 hectares in 1972-73 and 4,646 hectares in 1973-74. Table No. 14 gives the area under fruit-crops in Thane district.

Banana (kele) : It occupied an area of 1,341 hectares or about 53 per cent of the area under fruit-crops in 1972-73 in the district. Bassein, Dahanu and Palghar are the important centres of its cultivation.

The method of cultivation of banana in Bassein taluka is given below. Pits of one square foot are dug for planting suckers. Often two suckers are planted in one pit which are laid in rows. The taller varieties require more space between the rows. At the time of planting castor or groundnut cake is given as top dressing. Though planting is normally done in the beginning of the monsoon, early planting is beneficial as it assures early maturing and also higher yield. The best period for plantation is from May to June. Banana requires ample irrigation water. The irrigation is required at an interval of 6 to 8 days in the hot season. The side suckers are cut down as soon as they appear. A windbreak may be planted around the field to protect the plantation from winds which tear off the leaves.

During winter, the plants are protected from cold by letting in irrigation water. After planting, two harrowings are given so as to remove the weeds. Irrigation beds are repaired thrice during the life of the crop. Top dressing of oil-cake in two doses in the third and the fourth months, respectively, is given. Flowering starts after about nine

months and continues for three to four months more. The crop takes from eighteen to twenty months for maturing after planting. It can be allowed to multiply in the same field. The crop is harvested when the fruits get rounded and dry petals drop down. The plant is cut down immediately after the bunch is harvested. The taller variety grown in the district yields ratoon crop which is not possible in case of *Basrai* variety, the crop of which lasts for eighteen months. In Thane district a semi-tall mutant of the *Basrai* variety, viz., *Harisal* is grown on a large scale. This variety yields fruits which are largely exported.

The famous varieties of bananas in Thane district are *rajeli*, *tambdi*, *saphed velchi*, *sonkeli* and *basrai*. The well-known Bassein dried bananas belong to the *rajeli* variety, which are prepared in certain parts of the taluka. This variety is suitable for its dehydration as it contains less percentage of sugar which prevents the dried fruit from becoming syrupy.

The plantains of Bassein are now valued as a foreign exchange earning commodity which is exported to many countries.

Mangoes : Mango (*amba*) is an important fruit-crop in the district. It occupied an area of 333 hectares or about 13 per cent of the area under fruits in 1972-73. Bassein, Dahanu, Palghar, Talasari and Thane are the talukas where mangoes are cultivated on a large scale. About mango cultivation the old *Gazetteer of Thana District* published in 1882, has given a good description, which is reproduced below since it holds good even to-day :—

“The best kinds are *hapus*, *payari*, *kala hapus*, *bangali payari*, *Kavji patil*, *maijaon*, *batli*, *kolas*, *Salgat*, *farnandis* and *ladva*. The ordinary mode of propagating mangoes is by grafting. When the rains set in, the stones of wild or *rayaval* mangoes are planted about nine inches apart in ground which has been well dug and covered with damp pond earth. After the rains the seedlings are watered every fourth or fifth day, and in the next June, each is moved into an earthen pot. This earthen pot, which has a hole in the bottom covered with a convex potsherd, is half filled with earth, the young plant is placed in it and the pot filled to the brim with earth. The pots are set on the ground and left for a year, the plants requiring water every four or five days during the fair season after about a year. In *Vaishakh* or *Ashadh* (April-May or June-July) the stem of the seedling is sliced flat and strung to the similarly sliced branch of a first rate mango-tree, and the joint is tightly tied with plantain leaf. The seedling now requires water every third day, and in a month a notch is made in the branch of the good tree just below the splicing, and this notch is deepened month by month till, at the end of the sixth month, the

branch is cut clean off the parent tree, and the graft is complete. The young plant, with the good branch grafted on it, is left for two months standing in its pot on the ground. In *Phalgun* (February-March) the pot is broken, a hole is dug $2\frac{1}{2}$ feet deep and filled with nine inches of earth and nine inches of pond mud. In this the young mango is set with the earth from the pot clinging to it, care being taken not to cover the joint and to prop it well for fear of breakage. Six months later the plant's original leader is removed all but three or four inches, and these are cut off as soon as the graft puts forth new leaves. Mangoes thus planted are placed about $4\frac{1}{2}$ yards apart; they are given twelve jars, *handis*, of water the first day, ten the second, and so on till the rains; and for two years more they must be watered once a fortnight in the fair weather. Mangoes are never manured, but some gardeners give each tree basket of salt every year in *Vaishaka* (April-May). To avoid over-taxing the strength of the young tree, half the blossom is picked in the first flowering season and a smaller proportion in after years."

The mango crop requires deep well-drained soils, and the tree attains very large size measuring 50', 50' in fertile soils in the district. The climate best suited is the equable climate with little variation in maximum and minimum temperatures as prevalent in the coastal area of the district. Planting of mango graft is the only way to develop good gardens. Mangoes planted by the stone germination and seedling plantation method do not bear fruits of uniform and good quality. In preparing mango grafts the stock plants used for grafting purpose are grown in small earthen pots which are hardly about 15 cm. high in the nursery stage. This does not allow the top root system of the plants to develop and the roots are coiled around so that for almost a year during which the plant remains in the pot, the roots are only about six inches deep and simply coiled round. Such grafts are planted in the field during rainy season. Since the plants do not develop deep roots they have to be regularly watered after the cessation of rain so as to keep them alive. Watering is essential for about three years after which the roots go deep enough.

Manure is applied in the beginning of the growing season to achieve quick growth. The plant starts yielding fruits after about six years. Good yield is obtained from tenth year onwards. A good mango-tree bears 1,500 to 2,000 fruits or even more a year.

Alphonso is considered to be the best quality as it is fibreless and possesses a very delicious taste and a rich fragrance and flavour. Besides it can be preserved longer and appears well as a table-fruit.

The Alphonso fruit is in good demand in the market. The crop is assuming so much importance in recent years that a number of country

(*raival*) mango trees are being grafted into alphonso (*hapus*) trees with the technical advice of the Department of Agriculture.

Guava (peru) : It occupied on area of 56 hectares in 1972-73 in the district. It is grown in Dahanu, Palghar and Talasari talukas. It flourishes on a wide range of soils, especially the alluvial soils on the banks of rivers. Guava is propagated from seed but to have good quality fruits grafts from choice trees are used. After a thorough tillage, pits are dug and filled up with farmyard manure. After planting the field is laid out for irrigation. For a couple of years intercrops such as vegetables are taken till the tree starts bearing. The guava trees begin to bear fruits when about four to five years old. There are two principal flowering seasons, viz., *Mriga* and *Hasta* or *Ambe-bahar*. The fruits of the first season ripen in August-September and of the second in November-December. Fruits are plucked when about to ripen and the tree may yield 500 to 2,000 fruits per year according to the size of tree.

Chiku : *Chiku* orchards occupied a large area next only to banana, i.e., 667 hectares in 1972-73. It is grown mostly in the coastal area of Dahanu, Palghar and Talasari talukas. The best commercial plantations are seen at Gholwad in Dahanu taluka. The bulk of the *chiku* fruits sold in the Bombay market comes from the Dahanu-Gholwad area. Coastal climate and about 75" to 100" of rainfall from June to September suits the crop. *Chiku* is generally propagated by *gooty* layering and enarching. For *gooty* layering the branches are operated upon in the month of February and they become ready for detachment by August. *Chiku* is also propagated by enarching on Rayan (*Minusops indica*) stocks. Planting is done in monsoon or in November-December. Plants are usually spaced thirty feet apart. In general cultivation, the whole garden is hand dug at the end of the monsoon. Manure of sheep dung, bone-meal and groundnut-cake is usually applied twice in a year, once in September-October and again in March. The trees are usually irrigated after the end of monsoon. *Chiku* starts to bear fruits after three years of planting and continues it for about 75 to 100 years, if well cared for. The flowers appear on the tree almost throughout the year, though flowering is most profuse during the rainy season. The fruit takes about six months to be ready and the maximum crop is obtained from November to April though fruits are available almost throughout the year. An average full-grown tree yields about 2,000 fruits per year.

Pomelo (Pappas) : It occupied an area of 100 hectares in 1971-72 in the district. It is mostly grown in the coastal belt of the district. It is a round-headed bushy tree, attaining a height of about fifteen feet. Its method of cultivation is the same as that of mango (*amba*). It requires

constant watering and liberal manuring. It yields fruit throughout the year. On an average, a tree bears 30 to 40 fruits per year, depending on the age and condition of the tree. There are two varieties of this fruit, the red and the white, the former being popular and sweeter than the white one. The fruit is eaten mixed with sugar and much relished.

Phanas (Jack-fruit): It is grown in Dahanu and Palghar talukas. It is never cultivated as a sole crop and does not require much rearing. It is propagated by fresh seeds and bears fruit on its stem or in the axils of branches. There are two varieties of the fruit, *barka* having a soft pulp and *kapa* having a firm pulp.

Papaya: It grows in Dahanu, Palghar and Talasari talukas. It requires a well-drained soil. The seedlings are raised in nursery-beds and are ready for transplantation after the first showers. Only the female flower-bearing trees are retained. The trees begin to bloom at the end of the rainy season and the fruit ripens during the cold and the hot seasons. When ripe, the fruit usually attains the size of a small melon.

VEGETABLES

Vegetables occupied an area of 2,464 hectares in 1972-73 in the district. Bassein, Dahanu, Murbad, Bhiwandi and Palghar talukas are the main centres of vegetable cultivation in the district. Brinjal, onion, sweet potato, *bhendi*, radish and tomato are the main vegetables grown in the district. Table No. 15 gives the statistics of the area under vegetables in Thane district.

Brinjal (Vange): This is the most important among the vegetable crops grown in the district as it occupied an area of 1,082 hectares or about 44 per cent of the area under vegetables in 1972-73. Kalyan, Murbad, Shahapur, Bhivandi, Bassein, Dahanu and Palghar talukas are the centres of its cultivation. It grows well on medium brown soils, in garden land with the help of manure and water in considerable quantities. In gardens it is sown at any time of the year. The land is ploughed to a depth of from six to eight inches and well-rotted farm-yard manure is applied at a rate of twenty cart-loads per acre. Seeds are sown in nursery-beds and seedlings transplanted four or five weeks afterwards. The land is laid into beds or ridges and furrows. In beds $2\frac{1}{2}' \times 2\frac{1}{2}'$ size squares are made and in the case of ridges and furrows, a distance varying from two and a half to three feet is kept between two ridges. Two seedlings are planted at each place. Irrigation is given after transplanting. A second irrigation is given after fourth day and subsequent irrigations follow at an interval of from ten to twelve days. Top dressing of groundnut-cake is done in two or three doses after transplanting them after flowering and finally one month

thereafter the crop gets ready after three months and harvesting continues for another three months. Well-developed fruits are plucked and fields inspected every alternate day. In dry land it is sown in June in seed-beds, planted during July, begins to bear fruits in September and if occasionally watered, goes on bearing for four months.

Onion (*Kanda*): It occupied an area of 485 hectares in 1972-73. Bhivandi, Bassein, Dahanu, Palghar and Thane are well-known for its cultivation. It is grown as a cold weather irrigated crop. The crop is rotated with other garden-crops. The land is ploughed to a depth of six or seven inches. Seeds are sown on raised seed-beds in October-November. The seedlings get ready in four or five weeks. Irrigation is given prior to transplanting. Seedlings are transplanted at a distance of four or five inches in rows nine inches apart. In the ridges and furrows, they are transplanted on both sides of the ridges, half way upwards. There should be standing water in the plot at the time of transplanting. Irrigation after every twelve days is necessary and stirring must be done before irrigation. Top dressing of oil-cake is done from four to six weeks after transplanting. The bulbs are ready to lift in about three months after transplanting. The seed is ready for harvest in about four to eight months after transplanting.

Sweet Potato (*Ratale*): A root vegetable crop grown in Dahanu, Murbad, Bassein, Palghar, Shahapur and Kalyan talukas, occupied an area of 158 hectares in 1972-73. The crop can be taken in a variety of soils. It is grown in small patches in the district, though not very extensively. The crop is grown during the cold season and under irrigation. The land is first thoroughly cleaned by repeated ploughings and harrowings. It is then made into ridges and furrows. Farm-yard manure is applied at a rate of from fifteen to twenty cart-loads per acre. Top dressing of manure is given to the crop. It is propagated by cuttings which can be obtained from the nursery. The cuttings with three nodes are planted on the sides of the ridges, two and a half feet apart. About a hundred vines are required per acre from which cuttings are made. The stems, which throw out roots at each node, are repeatedly lifted clear from the ground and turned over to prevent the formation of small tubes. The crop is supposed to be ripe, when leaves of the vine turn yellow and drop off. It matures in about five months.

Radish (*Mula*): This vegetable crop is grown in Kalyan, Bassein Dahanu, Palghar, Jawhar and Talasari talukas and occupied an area of 74 hectares in 1972-73. It is grown at any time of the year in garden lands and sometimes in dry crop land during the rains. The land is ploughed, harrowed and loosened to a depth of six or seven inches and farm-yard manure is applied at a rate of ten to fifteen cart-loads

per acre. It is grown as a single crop as also a mixed crop taken along with other vegetables. During the hot season frequent irrigations at intervals of about five days can be given to the crop. The leaves are fit for use in six weeks, the roots in two months and the plant bears pods or *dingris* in a fortnight more and continues bearing for a month and half.

Cabbage (Kobi): It is grown in Kalyan, Bassein, Dahanu, Palghar and Talasari talukas and occupied an area of 45 hectares in 1972-73. It grows well in sandy loam or clay loam soils in cool winters. The field is left fallow in *Kharif* season and ploughed in September. Well-rotted farm-yard manure is applied to this crop. Sowing is done in August and transplanting in September. The cabbage matures in about three months, during which period eight to nine waterings are required. Top dressing of oil-cake and sulphate of ammonia is necessary up to one month since transplantation.

Tomato: Grown in Kalyan, Bassein, Dahanu, Palghar and Talasari talukas, it occupied an area of 72 hectares in 1972-73. It grows on a variety of soils, although well-drained light brown or black medium soil suits the crop best. Well-rotted farm-yard manure is applied to this crop. Seeds are first sown in nursery-beds and seedlings transplanted in three to four weeks. Transplanting is done in June, October and February; but the crop transplanted in June gives the highest yield. The land is laid into ridges and furrows three feet apart and seedlings are transplanted three feet apart in each row on the sides of ridges. Two seedlings are planted together. Irrigation is given immediately after transplanting and at an interval of eight or ten days when there is no rain. Top dressing with groundnut-cake or ammonium sulphate is beneficial. The crop gets ready in about three months. Harvesting continues for about two months.

Bhendi (Lady's finger): It is grown in Kalyan, Murbad, Bhivandi, Bassein, Vada and Palghar talukas and occupied an area of 65 hectares in 1972-73. It can be cultivated throughout the year but thrives well in *Kharif* season. The land is ploughed and manured with farm-yard manure. The seed is either drilled or dibbled at a distance of twelve to fifteen inches in a row. Sowing is done either in July or in January. Irrigation is given at intervals of from six to eight days in the hot season. Harvesting of tender fruits is done six to eight weeks after sowing.

Fenugreek (Mezhi): This crop occupied an area of thirteen hectares in 1972-73. Kalyan and Bassein talukas are the important centres of its cultivation. It is grown in garden lands at any time of the year. The crop is ready to be cut in four to five weeks.

Musk-melon (Kharbu): It occupied an area of 100 hectares in 1971-72. Thane, Kalyan and Bassein talukas are the main centres of

its cultivation. It is sown in the moist sandy spots in river-beds in December-January. As soon as the river recedes and the sand-banks are exposed, small plots are fenced off. Liberal manuring is given at intervals. The fruit ripens in about three to four months since planting. Usually melon-beds commence giving fruits in April and continue to yield till May. The fruit is round, green or yellowish, the skin covered with a net-work of raised brown lines.

Other vegetables : The other vegetables grown on a small scale in the district are yam, *suran*, little-gourd (*tondli*), bottle-gourd (*dudhya bhopla*), ridge-gourd (*dodka*), snake-gourd (*padval*), bitter-gourd (*karle*), etc. They together occupied an area of 489 hectares of the area under vegetables in the district in 1972-73.

Tondli (Little-gourd) : It is a common wild creeper growing on bushes and hedges in the district. It is a perennial crop growing vigorously for three to four years. Any type of climate and soil is suitable for this crop. There are two common varieties of *tondli*, one being plump, short, smooth and without markings on the skin and other being long and slender with verticle markings on the skin.

Yam : It is mostly grown in the district in garden lands. It flourishes well in a deep, free-working, sandy loam soil well stocked with manure. It also grows fairly well in soils of a still heavier character. It is seldom grown alone and is most generally a subordinate crop to ginger and turmeric. It is essentially a rain crop but generally needs irrigation to bring it to maturity. In the *varkas* land of the district the crop is sometimes grown alone.

Suran (Elephant root) : It is grown as a rain-fed crop and supplemented with well irrigation in the district.

Dudhya bhopla (Bottle gourd) : It is a creeping plant and is usually grown in garden lands round the edge of the crops.

Dodka (Ridge-gourd) : It is grown with the help of manure and water usually in rich land round the edges of other crops, or in gardens at any time of the year. In dry crop land it is sown in June-July.

Padval (Snake-gourd) : It is purely a rain-fed crop and grown in the garden lands of the district. This crop is grown in the same tracts and in the same way as *Dodka*.

Karle (Bitter-gourd) : It is grown either as a rain-fed crop or in garden lands at any time of the year. It is grown in the same way as *Dodka*.

Ghosale (Smooth-gourd) : It is grown and used in the same way as *Dodka* in the district. Mostly it is cultivated as a rain-fed crop and the fruit gets ready in August-September.

Kakdi (Cucumber) : It can be raised both as a rain-fed and as an irrigated crop. In the former, it is a large fruit with a green skin ; while

in the latter, it is a smaller egg-shaped fruit having smooth white skin. The plant begins to bear in about two months from planting.

Shevga (Drum-stick) : It is found in all parts of the district. It does not require special care and is usually grown in the vicinity of used-up water.

Tambada bhopala (Red pumpkin) : It is grown in any season of the year. It is usually grown round the edges of garden lands. Its creepers are allowed to trail on the ground or on roof-tops. The fruit gets ready in about three months. It is harvested when fully ripe.

Kohla (Ash-gourd) : It is grown round the edge of gardens at any time of the year. It begins to bear in three or four months since planting.

Leafy vegetables : Besides roots, tubers, green pod and fruit vegetables described above, the district has a number of leafy vegetables which are described below.

Alu : It grows well under heavy sewage irrigation. After four months from planting, the leaves and stalks are gathered every three or four days. They are cut off close to the ground whilst young and tender. It takes ten months for the crop to reach maturity.

Ambadi : It grows at any time of the year. Six weeks after planting tender leaves are produced in abundance. These are plucked and used as vegetable.

Chakvat : It is usually grown in gardens but sometimes in corners of early grain fields. It is ready to cut a month after sowing.

Chavli : It is grown in gardens at any time of the year. It seldom grows more than ten inches high and the leaves and stem are uniformly green.

Chuka : It is grown in gardens at any time of the year. The plant seldom grows to more than ten inches high. The plant has a pleasant sour flavour. It is ready for use in about a month's time from sowing.

Palak : It is grown in garden lands at any time of the year. The leaves and stem, when six weeks old, are used as a vegetable.

Kothimbir : It is cultivated throughout the district. After about six weeks from sowing it is uprooted for marketing.

FIBRES

Fibres grown in the district are *ambadi* (Deccan Hemp), sann-hemp (*tag*) and jute. They occupied an area of 584 hectares in 1972-73 and 604 hectares in 1973-74. Nearly 63.5 per cent of this was accounted for by *ambadi*. Table Nos. 16 and 17 give the taluka-wise area and out-turn under principal fibres in the district.

Deccan Hemp (*Ambadi*): It is grown all over the district and occupied an area of 379 hectares in 1972-73. Murbad, Bhivandi and Jawhar had the largest area (i.e. 75 per cent) under this crop during the same year.

As the crop is grown in subordination to the other crops with which it is associated, there are no special cultural operations for this crop and hence the tillage is the same as that given to the other crops along-with which it is cultivated. The crop is harvested when the stalks are dry. The plants ripen in October-November, when they are uprooted and processed further so as to obtain fibre from the stalks.

Sann-Hemp (*Tag*): It occupied a negligible area in the district and is grown only in Kalyan, Shahapur, Palghar and Talasari talukas. It is sown in November after the rice-crop is harvested. It gets ready for harvest after about five months.

Jute: Jute occupied an area of 205 hectares in 1972-73 in the district, of which Murbad, Bhivandi and Shahapur talukas accounted for a major portion of area under this crop. Jute fibres are obtained from two species of plants botanically known as *Corchorus olitorius* Finn and *C. capsularis* L.

SUGARCANE

Sugarcane is a minor garden crop grown in the *bhandarpatti* area of the district and occupied a small area of 34 hectares in Bassein, Dahanu, Shahapur and Palghar talukas in 1973-74.

Only local varieties of sugarcane are grown in the district. *Kavnagiri* or *Kali Maharj*, a medium thick red cane is also grown in the district. An improved variety of sugarcane, viz., C. 419 is recommended for this district by the Department of Agriculture, which yields sixty to seventy tons of cane in *adsali* plantings. Cuttings from ripe sugarcane stumps are planted with proper spacing. If planting is done after January, it is irrigated by well-water.

Harvesting starts from October and lasts up to March. The cane grown in the district is said to be of a very high quality and is mainly used for chewing and extraction of juice for drinking, though a few cultivators attempt *gul*-making. Table Nos. 18 and 19 give the statistics of area and out-turn of sugarcane in the district.

LIVE-STOCK

Live-stock occupies an important place in the agricultural economy of the district. It also constitutes one of the farmers' most coveted possessions. As the existing conditions of agricultural holdings in the district afford little scope for the use of mechanical devices for

agricultural operations, cattle labour has to be largely relied upon. Draught power required for agricultural operations such as ploughing, harrowing, sowing, transporting of agricultural produce etc., is derived mainly from bullocks. Cows and she-buffaloes are reared for milk production. Live-stock also provides much of the organic manure used on the farms.

The breed commonly found in the district is of non-descript type. Attempts are being made at governmental level to improve the quantity of live-stock in the district under the various schemes. The working of the schemes and the position of the live-stock in the district is described in what follows. Table No. 20 gives the taluka-wise live-stock population in Thane district as per the 1972 live-stock Census.

Sources of supply : Weekly markets and fairs held at various places are the main source of cattle-supply to the farmers. However, some animals of pure breed are imported from distant places in the State as well as from Gujarat for use in key village centres and cattle-breeding farms and for improving the local progeny at farms. A big cattle fair is also held every year in January at Mhasa in Murbad taluka. All kinds of animals from areas nearabout are brought for sale and prizes are given to cattle of good breed.

Animal Husbandry : An important aspect of animal husbandry is to provide facilities for treatment of sick animals, prevention from contagious diseases as well as to tackle various other problems pertaining to animal health. It also includes the programme of cattle development such as castration and general propaganda about breeding, feeding and management of animals. There were thirteen full-fledged veterinary dispensaries, one veterinary polyclinic and 37 veterinary-aid-centres in the district in 1975-76 under the Zilla Parishad as well as in the State sector. The following statement gives the statistics of the cases treated and the castrations performed by veterinary dispensaries and veterinary-aid-centres during 1966-67, 1967-68, 1968-69, 1972-73 and 1975-76 in Thane district :—

Particulars	1966-67	1967-68	1968-69	1972-73	1975-76
Cases treated ..	37,256	38,557	56,606	104,122	59,351
Castrations performed ..	2,827	2,796	4,666	315	4,455

Besides the cases treated and castrations performed at the dispensaries and aid-centres, the number of cases not brought in the dispensaries but supplied with medicines was 6,079 in the State sector and 24,917 in the Zilla Parishad sector during 1975-76.

In addition to these efforts to enrich live-stock in the district, the Government have started a key village centre at Kasa, a premium bull scheme, a few supplementary cattle-breeding centres and artificial insemination centres in the district.

Dangi breed of cattle and *Surati* and *Murhala* breed of buffaloes are found to be suitable for the climatic conditions in the district. Pure breeding of cattle is encouraged through the supply of pure breed bulls. Cattle improvement is also done through the multiplication of animals of the pure and improved varieties. The mode of artificial insemination of cows and buffaloes of the local varieties is found to yield good results in the district. Information about the schemes of cattle development in the district is given below :

District Premium Bull Scheme : Under this scheme 39 bulls were kept during 1962 to 1967 and fifty bulls during 1967 to 1972 and twenty-six bulls during 1975-76 in the district. Expenditure involved in this scheme amounted to Rs. 35,813, Rs. 57,940 and Rs. 24,259-80 during 1962 to 1967, 1967 to 1972 and 1975-76, respectively. The insemination services provided by these bulls were 800 ; 7,537 and 1,363 during 1962 to 1967, 1967 to 1972 and 1975-76, respectively. During the year 1975-76 the progeny born was recorded at 933. *Dangi* breed animals are also maintained under this scheme in the district. The owner of the bull is granted maintenance subsidy of Rs. 30 per month. Loans for purchase of bulls and cows were also advanced to the cultivators which were repayable in instalments.

Besides the above scheme of the Animal Husbandry Department, premium bull scheme was started by the Zilla Parishad in 1969-70, under which thirty-five bulls were provided in the district. Two separate Premium Bull Centres for under-developed areas of the district were also started at Shahapur and Jawhar. There were two *Dangi* and *Lal Sindhi* breeding bulls at each Centre. The expenditure incurred on these amounted to Rs. 1,06,675 during the period from 1967 to 1972.

Supplementary Cattle Breeding Scheme : A cattle-breeding unit is provided for a group of villages under this scheme. One supplementary cattle-breeding centre was established at Vihigaon in Shahapur taluka in 1966-67. Five breeding bulls and fifty cows are provided in the district under this scheme on subsidy basis. *Dangi* breeding bulls have been specially provided as they are found suitable for the purpose.

Artificial Insemination Centre : There is one full-fledged artificial insemination centre located at Bhiwandi with twelve sub-centres during 1975-76. During 1975-76, 990 artificial inseminations were done and the progeny born was recorded at 205.

Poultry Development Scheme : Poultry-keeping, particularly in the rural areas, provides a source of subsidiary income to the cultivators and agricultural labourers in the district. The poultry schemes propagated by the extension officers for animal husbandry, stockmen and the *gramsevak*s are now well received by the people. The activity under the poultry development scheme has gained considerable momentum in this district and the White Leghorn, Rhode Island Red and Black Austrolorp varieties of birds are supplied for grading rural poultry so as to help in increasing the production of better quality eggs. The Rhode Island Red variety is very much in demand and 229 birds and 65 dozens of hatching eggs were distributed to poultry-breeders in the district during the First Plan period. The work of poultry development was continued during the Second Plan period by distributing birds and eggs free of charge and at concessional rates to the agriculturists in the district. During the Third Plan period much emphasis was laid upon popularising poultry farming as a subsidiary occupation for cultivators. The scheme was popularised through co-operative movement and its results were found to be more encouraging in 1966 as compared with the 1961 Census figures.

For the district as a whole the poultry population was 5.82 lakhs in 1961, 6.07 lakhs in 1966 and 8.36 lakhs in 1972. The increase was observed more conspicuously in Jawhar, Vasai, Murbad, Kalyan and Thane talukas.

Under the poultry development scheme sufficient impetus is given to the poultry-keepers by providing various facilities. So far loans of Rs. 56,000 and subsidy of Rs. 13,500 have been advanced to poultry-keepers. Loans and subsidy are granted to each of the poultry-breeders for development of poultry. Grants are also given from time to time to the Institute at Kosbad for keeping birds by improved method such as the *Gadi* Method of Poultry-keeping.

Poultry development scheme under upgradation of poultry in scheduled area including Mokhada, Jawhar, Shahapur, Dahanu and Talasari and the scheme of free supply of cockerels and hatching eggs of exotic breed were continued during the year 1975-76. Under this scheme 274 cockerels and 233 dozens of hatching eggs were supplied to the *adivasis* and farmers.

For improvement of poultry in villages, hatching eggs and cockerels of exotic breed were supplied under various schemes. In all 4,503 hatching eggs and 575 cockerels were supplied to the farmers. The eggs were mainly procured from Regional Poultry Breeding Station, Goregaon ; Poultry Development Centre ; Palghar ; and Gokhale Education Society, Kosbad (Dahanu). Apart from this 1,016 female poultry birds were also supplied in Vasai, Shahapur and Murbad talukas.

Training in poultry-keeping to 220 women workers was also given in Talasari, Shahapur and Murbad talukas up to 1975-76.

Poultry Development in Backward Areas: Under this scheme thirty birds and thirteen dozens of hatching eggs were distributed to poultry-breeders in Mokhada, Jawhar, Shahapur, Dahanu and Talasari talukas for upgrading the local poultry. The expenditure incurred every year on this scheme amounted to from Rs. 1,300 to Rs. 1,500 up to 1967.

DAIRY DEVELOPMENT

Dairy development has great potentialities in offering a solution to the unemployment problem and to raise the level of both the income and the nutritional standards of the agricultural community. The aim of the dairy development scheme is to develop the dairy industry on an organised and scientific basis in certain towns and villages by establishing dairies, milk unions and primary milk producers societies in the district. However, no adequate progress has been observed in regard to dairy development. Provision for this scheme was Rs. 75.93 lakhs while the expenditure incurred was Rs. 23.09 during the Third Plan. The milk herds at Palghar and Dapchhari were maintained and arrangement for regular supply of milk to the tune of 3.75 lakhs of litres was made.

Dairy Co-operatives: There were 57 dairy co-operative societies and unions in the district during 1975-76. The details of these societies and unions are as under :—

(1) Number of societies and unions	...	57
(2) Membership	...	3,800
(3) Share-capital (Rs. in lakhs)	...	2.11
(4) Owned Funds (Rs. in lakhs)	...	6.12
(5) Working capital (Rs. in lakhs)	...	25.67
(6) Government loan (Rs. in lakhs)	...	0.47
(7) Milk produced (value Rs. in lakhs)	...	56.80
(8) Sale of milk (Rs. in lakhs)	...	66.40
(9) Number of societies in profit	...	21
(10) Amount of profit (Rs. in lakhs)	...	0.50
(11) Number of societies in loss	...	17
(12) Amount of loss (Rs. in lakhs)	...	0.20

Dapchhari Milk Scheme: This scheme is in the *adivasi* area of the district and provides scope for *adivasis* to work as milk-suppliers to the different centres to be established under this scheme. This scheme envisages the establishment of 800 milk centres. Each centre will have ten milch cattle and is expected to produce about forty litres of milk

per day. Provision of land for growing grass for each centre is being made by the authorities of the scheme. The Central Government has proposed to start a milk project with an investment of Rs. 10 crores. It has acquired a total area of 5,000 acres. Licensed units and farmers units will function under the project. Two hundred and forty-three licensed units will feed 10,000 cattle. Another 10,000 cattle will be fed under 800 farmers units. In addition the Government will own 10,000 cattle. The project authorities expected to collect three lakh litres of milk per day which will be sold at Bombay after pasteurizing at Goregaon. The details of this scheme are given below :—

Dairy Project, Dapchhari : The decision of establishing dairy project at Dapchhari was taken in the year 1962-63. Initially it was intended to run this dairy project on the same lines as that of Aarey Milk Colony, Goregaon, where cattle colonization has been done on a very big scale. However, in view of suggestions of the Government of India, the entire pattern was changed and the Project was decided to be implemented in three separate units as Government unit, farmers units and licensees units as per details given below.

For the implementation of the project, it was decided to acquire initially 2,654 hectares of land in December 1964, which was subsequently increased to 2,920 hectares due to additional requirement of land for dam, etc. The original outlay envisaged for completion of the project in three phases was to the tune of Rs. 5.62 crores, which is now estimated to cost about Rs. 11.00 crores. Break-up of the original estimate of the project is given below :—

	Rupees in lakhs
(1) Land acquisition and development ...	27.00
(2) Irrigation and water-supply ...	196.00
(3) Roads ...	25.00
(4) Electricity ...	26.37
(5) Government units including live-stock.	24.00
(6) Farmers units ...	185.63
(7) Housing of 10,000 buffaloes to be shifted from Bombay.	10.00
(8) Facilities for collection and chilling of milk at the project and in the surrounding areas.	7.00
(9) Transport facilities ...	35.00
(10) Building, machinery, equipment ...	2.00

	Rupees in lakhs
(11) Animal breeding facilities ...	3.00
(12) Administrative office staff quarters, godowns, <i>adivasi</i> quarters etc.	60.00
(13) Dairy building, chilling plant and machinery.	50.00
(14) Miscellaneous items (furniture, equipment etc.).	17.00
Total ...	668.00

The actual work of construction and other preliminary activities of the project commenced from 1969-70. The animal husbandry activities at Dapchhari commenced with effect from 1967-68 with the arrival of young stock and adult cows from Aarey Dairy.

The Depchhari Dairy Project has been divided in to three different units, viz., (1) Government unit, (2) Farmers units and (3) Licensees units.

When completed, it will accommodate nearly 21,000 milch animals along with about 20,000 young stock. Their distribution and anticipated milk-produce would be as under :—

Name of the Unit	Anticipated animal population	Anticipated daily milk production
		Litres
(1) Government unit	1,000 Cows 400 young stock	5,000
(2) Farmers units	10,000 Cows 10,000 young stock	50,000
(3) Licensees units	10,000 Buffaloes 10,000 young stock	50,000
(4) Procurement from round-about areas of the Project.	....	20,000
	Total ..	1,25,000

All quantity of milk would be supplied daily through road tankers to Bombay City, when the project is completed. The statistics of present live-stock population of Government unit and Farmers units is given in statement No. 1.

STATEMENT NO. 1—INFORMATION ABOUT HERD STRENGTH OF
CATTLE IN GOVERNMENT AND FARMERS UNITS AS ON
31ST OCTOBER 1976

Category		Government unit	Farmers units
1.	Cross-bred cows	161	968
2.	Indigenous cows (+10 kept at Palghar farm)	695	212
3.	Cross-bred young stock—		
	(a) Heifers	407	200
	(b) Female calves	168	122
	(c) Male calves	144	111
4.	Indigenous young stock—		
	(a) Heifers	70	67
	(+95 kept at Palghar farm)		
	(b) Male calves	1	45
5.	Breeding bulls—		
	(a) Exotic	11	....
	(b) Cross-bred	1	....
	Draught bullocks and bulls	84	12

Besides supply of milk to the city of Bombay, which is the main objective of the project, there are other subsidiary activities as given under :—

(a) Comprehensive cross-breeding programme in Government and Farmers unit area so as to create a market for supply of cross-bred heifers to farmers in surrounding areas and subsequently in whole of the State for boosting up milk production.

(b) Cultivation of various fodder-crops and grasses of more nutritive value on a large scale to provide good quality green and dry fodder to milch animals in all the units of the project.

(c) Development of dairy industry as a means of livelihood in surrounding areas of the project for upliftment of the *adivasi* population. It is envisaged that the project will receive about 20,000 litres or more of milk per day from the nearby areas thus assuring source of income to *adivasis* and help them to improve their standard of living, through adoption of mixed farming.

(d) Rehabilitation of 1,074 *adivasi* families affected due to the acquisition of land by the project. The project-affected *khatedar* families rehabilitated at Boranda-Kosbad, Uplat and Modgaon have been given four acres of rain-fed land whereas project-affected *khatedar* families rehabilitated at Vankas and Wadawali have been given one acre of irrigated land. Separate areas have been provided for the establishment of *Gaothans* at new villages, with minimum

necessities like drinking water, well, school, road, community centre, etc.

Similarly, the project-affected *adivasi* families have been allotted farmers units on a priority basis. The project-affected persons are appointed as workers on daily wages.

Working of units—(a) *Government unit*: Government unit will consist of 1,000 adult and 400 young stock. Experiments of cross-breeding and calf rearing are carried out in this unit. In order to carry out cross-breeding work, seven indigenous breeds such as Gir, Rathi, Dangi, Deoni, Kankrej, Tharparkar and Haryana have been selected and procured from their respective breeding tracts. They are being cross-bred with the bulls of exotic breeds, viz., Holstein Freisian and Jersey.

The first generation of the cross-bred heifers referred to as F-1 shall be (a) the heavy-bodied animals of Gir, Kankrej, Haryana and Tharparkar breeds crossed with the bull of Holstein Freisian breed and (b) the light-bodied animals of Rathi, Dangi and Deoni breeds crossed with the bull of Jersey breed. This is obviously for reasons of the limited capacity of cows to bear the weight of foetus.

The first F-1 generation from Holstein Freisian bull would be further crossed with Jersey bull and that obtained out of the Jersey bull would be crossed with Holstein Freisian bull. This would roughly give 75 per cent exotic blood level into the second generation of cross-bred animals referred to as F-2. This F-2 generation is decided to be bred with cross-bred bull of F-1 generation amounting to back cross, giving F-3 generation with 57½ per cent exotic blood level.

The indigenous herd of cows is called the foundation stock, whereas the F-3 generation herd would be referred to as common stock (Dapchari breed) as it will be the generation which shall be retained in the project at ultimate stage with further breeding the common stock with the semen of bulls selected out of the progeny of F-3 generation.

Large number of breeds from various tracts have been selected to identify the potentiality and response to cross-breeding and acclimatization of this area. A good deal of experiments on these aspects would be carried out before arriving at a definite conclusion.

In addition to the animals of Government unit available for carrying out various experiments, the animals located in the farmers units would also be available for carrying out the experiments. It is proposed to name the F-3 generation by common name as *Dapchari* breed.

The experiments at calf-rearing are intended to evolve scientific methods so as to enable the calf to gain minimum required body weight desired for breeding in the shortest possible time. In respect of calf obtained by cross of Holstein Freisian should gain average body

weight of about 800 grams per day and the calf born out of Jersey breed should gain the average body weight of 600 grams per day. Any deficiency in respect of body weight of a calf has to be done away with.

The average age of the first calving in cross-bred calves presently is about twenty-three months. The project authorities are trying to minimise this average age of first conception. In respect of cross-bred heifers at established stage, the average age of first conception should not be more than fifteen months. In order to achieve this, certain issues such as proper management, periodical vaccinations (prophylactic measures), adequate feeding of fodder as well as minerals are being ensured and periodical (at least monthly) weighment of calves is undertaken. Special care of the calves which have not gained the required body weight is to be undertaken. Adequate feeding of quality fodder and periodical prophylactic measures and steady growth of body weight also have an important bearing on the performance of the heifer as regards milk production.

A Disease Investigation Section is also envisaged in the project report. However till the establishment of this Section, the work is being carried out with the help of present project staff and Disease Investigation Wing of the Animal Husbandry Department.

(b) *Farmers units*: Establishment of farmers units is an important main activity of the project. It is proposed to have 800 farmers units, each with about one hectare of land with one residential house and a stable to accommodate twelve cross-bred cows.

Each of the farmers units would be provided with approach roads. The farmer will be directed to cultivate perennial fodder-crops like *paragrass*, *gajraj*, *desmanthus* etc. in about one acre. In another acre he may cultivate crops to meet his grain requirement, followed by seasonal fodder-crops like *berseem*, maize, *bajra*, *jowar*, *chawali*, *mug*, *wal* etc. These fodder-crops could meet the requirement of green fodder of the unit-holder all the year round. The additional requirement regarding dry hay and concentrates would be met by him from surrounding areas as also from the cattle-feed factory at the Dairy Project.

The farmer can also have a small flower garden on about one to two *gunthas* of land in between his residence and approach road and about one to two *gunthas* of kitchen garden which will cater to his own requirement of vegetables. In an open space of about 25' × 30' between the residence and cattle-shed he would rear a poultry of 50 to 100 birds. On bunds and behind the cattle-shed he will have thirty to forty fruit plants like coconut, *chiku*, guava etc. All these additional activities will be helpful for satisfying his own requirements and additional produce will be marketed by him to outside areas through a co-operative society.

All the units are to be covered by dairy co-operative societies comprising twenty-five to thirty units which will take up the work of milk collection, supply of various agricultural inputs, medicines, marketing of agricultural produce etc. The present 168 units are recently covered by the establishment of six dairy co-operative societies which are taking up the work of milk collection. The problem of manure will be solved by *gobar* gas plants which will be provided through institutional finance.

The unit is allotted to a farmer on a temporary lease of eleven months which is renewable after its expiry. A certain amount of rent for the house and stable is proposed to be charged. The irrigation charges would be as under :—

		Per acre
		Rs.
(1) Perennial	...	397
(2) <i>Rabi</i>	...	155
(3) Summer	...	179
(4) <i>Kharif</i>	...	23

The rent for house and stable will not be charged for the first two years from execution of agreement bond. Similarly irrigation water will also be given free for the first two years.

Fortnightly meetings of farmers unit-holders are organised under the guidance of project staff wherein day-to-day problems are discussed and solved and valuable information on various aspects is given to the farmers. These meetings help develop better understanding and relations amongst the farmers and the project staff and exchange of ideas.

All technical and extension services in agriculture, animal husbandry and dairying are to be provided by the project staff. All the farmers have been covered under small saving scheme by opening C. T. D. accounts and regular saving is made from the sale proceeds of milk. It is obligatory on the part of unit-holder to give all milk to the project excepting small quantity which he may use for his own consumption and for young stock of cattle.

At present there are 158 farmers, the detailed statistical information of whom is given in statement No. 2. The farmer is provided bank loan for purchase of twelve cows. A certain amount of subsidy is also granted.

(c) *Licensee units* : There are three types of licensee units proposed to be established at the Project with an area of 1 to 23 acres of land depending on the size of the herd. In the licensee units the cattle and stable owners who have got licence of keeping cattle in Bombay City will be allowed to shift their animals under the scheme. Only a piece of land with road, water and electric facilities will be given to these

licensees. The licensees will be provided with the necessary facilities. An area of 500 acres has been reserved for this scheme and the same is divided into 240 units which are expected to accommodate about 10,000 milch cattle.

Agricultural activities of Government Unit: The dam on Velholi river in the project has been completed in June 1978. It provides irrigation facilities to about 1600 hectares of land. After meeting the requirements of the various units, the rest of the irrigated land will be utilised for rehabilitation of project-affected persons.

STATEMENT NO. 2—INFORMATION REGARDING FARMERS UNITS
DAIRY PROJECT, DAPCHARI, AS ON 25TH NOVEMBER 1976

1.	Total number of farmers units to be constructed	..	800
2.	Number of farmers units constructed	.. ..	170
3.	Number of farmers units allotted	.. ..	168
4.	Total Number of <i>adivasi</i> farmers allotted with farmers units	..	40
5.	Total loan amount sanctioned by Bank of Maharashtra at Rs. 36,000 per farmer.	Farmers 156 Rs. 36,000	Rs. 56,16,000.00
6.	Loan amount disbursed by the Bank of Maharashtra—		
	(1) As first instalment	.. 156	20,12,040.00
	(2) Second instalment	.. 145	12,16,803.00
7.	Recovery of loan amount :—		
	(1) Subsidy at Rs. 500 for each cross-bred animal from Dairy Development Department.		2,44,500.00
	(2) Recovery from S. F. D. A., Thane	.. ..	71,308.00
	(3) Recovery from the monthly milk-bills	.. ..	5,84,590.00
	(4) Refund of unspent loan amount	.. ..	43,067.39
	(5) Auctioning cull animals	.. ..	4,432.00
	(6) Recovery of insurance amount	.. ..	49,468.00
8.	Number of gobar gas plants sanctioned by Khadi Commission		60
9.	Number of gobar gas plants to which loan amount is sanctioned by Bank of Maharashtra.	42 ..	1,50,160.00
10.	Number of gas plants completed	Non-adivasis 23 Adivasis 19	Total 42
11.	Loan amount recovered for gas plants	.. ..	Rs. 18,093.00
12.	Subsidy amount credited to the Bank towards gas plants	..	31,500.00
13.	Details of animals purchased by the farmers of farmers units—		
	(a) Cross-bred cows purchased from Bangalore	..	673
	(b) Gir cows purchased from Goregaon	..	235
	(c) Gir cows owned by farmers—allowed to be kept in the unit.	..	2
	(d) Cross-bred cows purchased from Akluj and Nagar	..	10
	(e) Pregnant cross-bred heifers supplied from Project herd	..	145
	(f) Pregnant cross-bred heifers supplied from Aarey herd	..	107
	(g) One year old cross-bred heifers supplied from Project herd	..	177
	(h) Animals purchased in auction	.. ..	32
14.	Animals in milk as on 25th November 1976	.. ..	636
15.	Daily milk production as on 25th November 1976	..	3,222.50 litres
16.	Average milk per cow per day	.. ..	5.00 litres

**STATEMENT NO. 3—STATEMENT SHOWING THE AREAS AND OUT-TURN
OF DIFFERENT CROPS IN 1975-76, 1976-77, 1977-78
DAIRY PROJECT, DAPCHARI***

(Area in hectares and Production in Metric tonnes)

Kind of produce	1975-76 Actual		1976-77 Expected		1977-78 Expected	
	Area	Production	Area	Production	Area	Production
A. Grains—						
(a) Paddy ..	197.60	505	235	725	275	765
(b) Jowar ..	12.45	11	38	76	50	100
(c) Nagali ..	14.76	10	21	21	25	25
(d) Pulses and Legumes.	9.76	3	50	50	60	60
(e) Maize ..	8.88	18	40	120	50	150
(f) Bajra ..	16.94	14	20	20	20	20
(g) Wheat ..	3.68	9	10	25	20	50
B. Green-fodder—						
(a) Jowar ..	109.50	386	160	1,600	190	3,800
(b) Berseem ..	15.00	4,085	30	750	40	1,000
(c) Maize ..	46.00	1,088	54	1,620	60	1,800
(d) Bajra ..	41.00	688	10	200	10	200
(e) Para grass ..	14.30	1,430	40	4,000	40	6,000
(f) Gajraj ..	15.00	329	54	200	15	1,200
C. Dry-fodder—						
(a) Paddy straw ..	....	205	....	550	....	675
(b) Jowar, Maize, Kadbl.	....	43	....	510	....	700
(c) Hay ..	500	1,614	500	1,500	500	1,500
D. Others—						
(a) Sannhemp ..	100	....	100	....	150	....
(b) Vel and Other Crops.	61	106	70	150	90	200
(c) Jungle Grass ..	....	2,300	....	2,300	....	2,000
Grand Total ..	1,165.87	9,334	1,383	14,417	1,595	20,245

*In addition to this programme it is proposed to plant about 20,000 trees including mango, coconut, chiku, rain tree, gulmohar, cashewnut, chinch, ain, fanas, agastha trees during 1976-77 and 1977-78 seasons.

IRRIGATION

Agriculture in Thane district is still dependent on rainfall, as the topography of the district is not suitable for construction of major and medium irrigation projects. Till 1882, irrigation facilities in the district were very meagre. The old *Gazetteer of Thana District*, 1882, has given the following account about irrigation in the district then :—

“ The chief irrigation is the rainy season flooding of rice lands by the small streams that drain the neighbouring uplands. Some dry-weather irrigation is also carried on from rivers and unbuilt wells. The gardens in Bassein and Mahim, which are much the best in the district, are watered by Persian wheels from unbuilt wells. In other parts of the district, garden land is rare, and except in a few onion gardens at Bhiwandi and Kalyan, irrigation from ponds or built wells is almost unknown.”*

There was no Government Protective Irrigation work in the district till 1925. The tanks for irrigation which were very few in number were small. The number of wells used for irrigation was about five thousand which were confined to the coastal talukas, chiefly of Vasai, Dahanu and Salsette.¹

Development of irrigation facilities found a honoured place in the strategy of agrarian development in the post-Independence period. With the object of construction of new irrigation wells and repairs to existing wells, encouraging the cultivators to undertake such works by paying subsidy and *tagai* loans was undertaken. There was a great demand from the cultivators for deepening the existing wells to augment the water-supply. Two boring machines were, therefore, allotted to the district, one of which was handed over to the District Local Board, Thane and the other to the Taluka Development Board, Palghar. About 338 wells were deepened during the First Plan.

Besides the construction and deepening of wells, the Government encourages construction of temporary *bandharas* at suitable sites across *nallas* by granting a subsidy equal to 50 per cent of the total cost incurred subject to a maximum of Rs. 10 per acre of additional area brought under irrigation. The *katcha bandharas* constructed upto 1952-53 numbered eleven which provided irrigation facilities to 471 acres of land. As the temporary *bandharas* in many cases are washed away by floods, Government has adopted the policy of developing permanent minor irrigation works. Under this programme twenty-five minor irrigation works were completed by the end of the First Plan which provided irrigation to an area of 2,171 acres.

**Gazetteer of Bombay Presidency*, Volume XIII, Part I, Thana District, 1882, page 281.

¹ Statistical Atlas, Bombay Presidency, Third Edition, 1925, page 133.

Sources of water-supply : The main sources of water-supply in the district are wells, *bandharas*, canals and tanks. Lift irrigation from rivers and wells through the installation of oil-engines and electric pumping sets has also benefited agriculture in the district. Table No. 21 gives the taluka-wise sources of water-supply and net area irrigated by them, in 1961-62, 1967-68 and 1973-74.

Major and Medium Irrigation Projects : *Bhatsa Irrigation Project :* It is a major irrigation project under construction on the river Bhatsa near the village of Sajivali in Shahapur taluka. This scheme was taken up in the Fourth Plan and the first stage of this project is likely to be completed in June 1979. The cost of the same was originally estimated at Rs. 1,633.74 lakhs. But it was revised to Rs. 662.47 lakhs* subsequently. The sanctioned height of the dam is 53.25 metres. The total length of canals would be 52.15 kilometres. The maximum storage capacity of this dam would be 264 million cubic feet. The gross area commanded and the cultivable area under command of this project would be 10,500 and 7,004 hectares, respectively. The irrigable area commanded after completion of this project would be 5,900 hectares in Shahapur and Bhivandi talukas.

It is proposed that 80 per cent of the irrigable area would receive seasonal irrigation and 20 per cent, perennial irrigation from this project.

The Bhatsa project is mainly intended to supply drinking water to the metropolitan city of Bombay. It is planned to provide irrigational facilities to the land in Shahapur and Bhivandi talukas after meeting the drinking water requirements of Bombay.

An outlay of Rs. 384 lakhs is envisaged for this project in the Fifth Five-Year Plan.

Surya Project : This medium irrigation project lies in the north region of the district on the river Surya near village of Dhamni in Jawahar taluka. This region is mostly inhabited by *adivasi* population. This project will accelerate the socio-economic development of the tribal communities. It will also help in accelerating the development in the Tarapur industrial area. This project was started in the Fourth Five-Year Plan and is likely to be completed in 1979-80. The revised estimated cost of the project is Rs. 2,573 lakhs.

The sanctioned height of this dam is 55.12 metres. It has pick-up weir of about nine kilometres down stream of the main dam near the village of Kavdas. The length of the right bank canal would be 33.6 kilometres and of the left bank canal, 32 kilometres. The maximum storage

*Information received from the Executive Engineer, Bhatsa Project (December 1976.)

capacity of this dam would be 285.31 million cubic feet. On completion of the project, irrigation facilities for 12,667 hectares of area in Jawhar, Palghar and Dahanu talukas will be available. A power-generating plant with five MW capacity at the foot of the main dam is also proposed. At present the work on pick-up weir is in progress and preliminaries on the main dam and canals have been taken up.

Minor Irrigation works : Minor irrigation works, i.e., the projects irrigating less than 250 acres of land have been transferred to the Zilla Parishad. During the first, the second and the third plan period, twenty-six, ten and eighteen minor irrigation works were started, respectively. Of these twenty-three were completed in the first plan period and ten in the second plan period, and the rest during the third plan period. Besides the work of construction of six *Vasant bandharas* was started in 1966-67 and completed in 1967-68 and the work of 57 *bandharas* was completed upto 1968-69 which provided irrigation to 4,739 acres of land.

During the third plan the work of one storage *bandhara*, viz., Pandhartara on the river Tansa at Usgaon in Vasai taluka was undertaken and completed in 1968-69, providing irrigation to an area of 570 acres. The length of this *bandhara* is 550 feet and the total construction cost is Rs. 2,14,662. This *bandhara* provides irrigation to 700 acres of land.

The Zilla Parishad undertook six lift irrigation works in 1966-67, fourteen in 1967-68 and twelve in 1968-69. Of these, five were completed in 1968-69, four in 1969-70, twelve in 1970-71 and nine in 1971-72, providing irrigation to an area of 3,035 acres of land. The rest of the two works were in progress.

Statement "A" shows the progress of the lift irrigation schemes and Statement "B" shows the progress of tanks, percolation tanks and Konkan *bandharas* under the Zilla Parishad by the end of 1971-72.

The Statement "C" below gives information about the proposed irrigation schemes in the district in 1971-72.

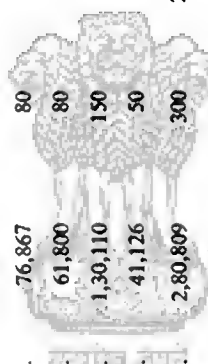
It will thus be seen that 96 minor irrigation works comprising 57 *Kharif bandharas*, three *Konkan bandharas*, five percolation tanks, one storage *bandhara* and thirty lift irrigation schemes, providing irrigation to an area of 2,400 acres in the district were completed by the end of 1971-72.

The position of minor irrigation works in Thane district during 1976 is given below :

There are in all thirty-one lift irrigation works completed by the Thane Zilla Parishad which created an irrigation potential of 527 hectares since the inception of this scheme.

STATEMENT "A"—PROGRESS OF LIFT IRRIGATION WORKS UNDER ZILLA PARISHAD UPTO JUNE 1972 IN THANE DISTRICT

Taluka	Name of work	Name of river or nalla	Estimated cost	Irrigation capacity	Expenditure upto the end of March 1972	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Rs.	Acres	Rs.	
Kalyan	Rayata	.. Ulhas ..	.. 46,400	100	47,773	Work completed
	Kamba	.. Ulhas ..	.. 1,20,600	200	1,15,433.60	Work completed
	Bhisale	.. Ulhas ..	.. 46,200	80	5,01,013	Work completed
Shahapur	Sagaon	.. Shai ..	.. 99,917	100	99,551	Work completed
	Khutghar	.. Bhatsa	.. 99,731	100	1,01,134	Work completed
	Kasgaon	.. Bhatsa	.. 83,944	85	83,277	Work completed
Murbad	Shai	.. Shai ..	.. 67,552	80	82,956	Work completed
Wada	Khariwali	.. Vaitarna	.. 2,14,595	420	2,70,845	Work under completion
	Met	.. Tansa ..	.. 47,451	100	49,884	Work completed
	Pali	.. Pinjal ..	.. 93,834	100	93,829	Work completed
	Chamba	.. Tansa ..	.. 96,396	100	82,701	Work completed
Bhiwandi	Rahur	.. Kumbhari	.. 50,600	60	34,289	Work under completion
	Sawroli	.. Tansa	.. 1,05,200	120	90,624	Work completed



Dahanu	..	Bangaon	..	Bawan nalla	..	93,683	100	46,449	Work completed
		Raitali	..	Raitali	..	56,047	80	30,294	Work completed
		Leth (Goal peth)	..	Surya ..	..	60,550	70	36,366	Work completed
		Veti ..	..	Surya ..	..	81,370	90	52,284	Work completed
Jawhar	..	Therunda	..	Surya ..	..	1,14,200	180	1,00,880	Work completed
		Vikramgad	..	Delvaja	..	66,354	80	83,462	Work completed
		Shelpada	..	Pinjal ..	..	41,500	120	27,085	Work completed
		Malwada	..	Pinjal ..	..	55,410	120	43,746	Work completed
Palghar	..	Karalgaon	..	Dehrija ..	..	76,867	80	49,295	Work under completion
		Ambur	..	Vaitarna	..	61,800	80	21,667.50	Work under completion
		Maswan	..	Surya ..	..	1,30,110	150	75,328	Work under completion
		Betegaon	..	Betegaon nalla	..	41,126	50	24,984	Work completed
Talasari	..	Giirgaon	..	Waroli	..	2,80,809	300	2,37,043	Work under completion
		Kawada	..	Waroli ..	..	41,139	70	54,337	Work completed
Vasai	..	Kolhichinchoti	..	Dindi nalla	..	73,619	80	59,093	Work completed
		Bhaliwali	..	Sikni nalla	..	86,158	100	93,852	Work completed
		Bhatane	..	Tansa ..	..	90,200	150	91,821	Work completed
		Adne ..	..	Tansa ..	..	90,760	150	53,699	Work completed
		Shirwali	..	Tumbhati nalla	..	58,546	60	58,466.50	Work completed
Total ..						27,74,058	3,355	24,44,652.20	

STATEMENT "B"—PROGRESS OF TANKS, PERCOLATION TANKS AND KONKAN BANDHARAS UNDER
ZILLA PARISHAD UP TO THE END OF JUNE 1972

Taluka (1)	Name of work (2)	Year of Commencement (3)	Name of river or nalla (4)	Estimated cost (5)	Irrigation capacity (6)	Expenditure by the end of March 1972 (7)	Remarks (8)
				Rs.	Acres	Rs.	
1. Tanks—							
Murbad	Kishor	1968-69	N.A.	2,74,100	100	2,00,675.60	Nearing completion
Jawhar	Gadhavkhindi	1971-72	N.A.	4,88,495	200	49,907.00	Under construction
2. Percolation Tanks—							
Palghar	Mathane						
	Usarni	1968-69	N.A.	89,428	40	68,784.00	Completed
	Paneri	1969-70	N.A.	62,262	30	37,059.00	Under construction
Mokhada	Khedala	1968-69	N.A.	97,820	50	94,843.75	Completed
	Mokhada	1970-71	N.A.	1,37,447	70	84,288.05	Nearing completion
Dahanu	Bordi	1969-70	N.A.	71,300	35	54,515.05	Completed
Murbad	Waishakhare	1970-71	N.A.	88,100	40	87,735.19	Completed
Vasai	Nirmal	1971-72	N.A.	3,59,782	115	69,570.80	Under construction
6. Shahapur	Malegaon	1971-72	N.A.	2,64,300	100	11,927.00	Under construction
	Umbhrai	1971-72	N.A.	1,26,500	45	3,571.00	Under construction
	Tembhurli	1971-72	N.A.	95,700	50	6,243.50	Under construction
7. Ulhasnagar	Chon	1971-72	N.A.	65,847	35	3,469.00	Under construction
8. Konkan Bandharas—							
Vasai	Sayawan						
	Medhe	1971-72	N.A.	2,07,653	200	16,838.90	Under construction
Shahapur	Mugaon	1970-71	Kannhvi	44,735	40	28,896.36	Under construction
Murbad	Saralgaon	1970-71	Doiphodi	36,537	32	44,445.00	Completed
	Total			25,12,306	1,182	8,62,769.20	

N.A. = Not available

**STATEMENT "C"—PROPOSED IRRIGATION SCHEMES, THANE
DISTRICT IN 1971-72**

Serial No.	Name of the work	Estimated cost (Rs.)	Irrigation capacity (Acres)
(A) Tanks—			
1	Kaman (Vasai Taluka)	2,70,000	100
2	Chamroti (Dahanu Taluka)	....	....
3	Saphala (Palghar Taluka)	3,56,570	120
(B) Percolation tanks—			
1	Parhe (Murbad taluka)	....	....
2	Chinchghar	....	....
3	Sheldhapad (Wada taluka)	....	....
4	Sawarkhed (Palghar taluka)	....	....
(C) Konkan bandharas—			
1	Rawal (Palghar taluka)	26,700	35

The minor irrigation works completed in the sector of development in the district which cost about Rs. 7.61 lakhs created an irrigation potential of 84 hectares. In addition to this, twenty-two percolation tanks costing about Rs. 36.69 lakhs have been completed. An approximate area of 452 hectares will be directly benefited by these tanks. Similarly, nine *bandharas* suitable for the conditions in the district have been completed at a cost of Rs. 7.85 lakhs. They created an irrigation potential of 218 hectares of land in the district. All these schemes are expected to provide irrigation facilities to an area of 745 hectares of land.

The work on three irrigation tanks at an estimated cost of Rs. 12.95 lakhs which will create irrigation potential of 126 hectares is in progress. The work on 27 percolation tanks which is expected to extend benefit of irrigation to 1,046 hectares in the district is also in progress at present. The work on two Konkan type of *bandharas* was also in progress (1976) at an estimated cost of Rs. 3.75 lakhs.

Lift Irrigation Societies: There are 46 lift irrigation societies working in the district and the position of these societies in 1975-76 is given below :—

Item	1975-76
Number of societies ...	46
Membership ...	600
Share capital (Rs. in lakhs) ...	0.52

Item		1975-76
Owned funds (Rs. in lakhs)	...	0.53
Working capital (Rs. in lakhs)	...	1.07
Government loan	... ..	.....
Area commanded (in hectares)	...	17,400
Area irrigated (in hectares)	...	4,000
Number of societies in profit	...	7
Amount of profit (Rs. in lakhs)	...	0.07
Number of societies in loss	..	10
Amount of loss (Rs. in lakhs)	...	0.12

SEED-SUPPLY

The progressive cultivators are usually found to pick up selected ear-heads from healthy and vigorous plants at the time of harvesting and preserve them as seed till the next sowing season. With other cultivators, the common practice is to obtain seed either from local merchants or from big cultivators, who have surplus seed to sell after meeting their own requirements.

It is found that the improved varieties of seeds evolved by the Department of Agriculture give about 10 to 15 per cent increased yield over the local varieties. The improved seeds played a vital role in increasing the agricultural production. With the adoption of hybrid and high-yielding varieties, the production, multiplication and distribution of improved seeds have assumed greater importance. Hence a large seed production programme has also been taken in hand and a special organisation has been set up for this purpose. The seed multiplication and distribution system has also been improved. A scheme for the multiplication and distribution of improved paddy strains has been undertaken in this district since 1945-46. For constant supply of seeds of improved varieties, taluka seed multiplication farms were established in the district at Chavindra in Bhivandi taluka, Khutal in Murbad taluka, Pelhar in Vasai taluka, Palghar, Sarvāli in Dahanu taluka and Wada. The main object of these farms is production of foundation seed of improved varieties to be supplied to registered seed-growers for further multiplication in the district. In 1971-72 there were in the district six Taluka seed multiplication farms.

The nucleus seed is supplied to the seed multiplication farms and the multiplied seed is named as foundation seed which is distributed through co-operative societies to the cultivators. The produce from the cultivators field is supplied as general seed for natural spread. As paddy is the main crop grown in this district 6,502 quintals of improved paddy seed was distributed during the Third Plan period.

The statistics regarding the distribution of improved seeds during the years 1966-67 to 1974-75 in Thane district is given below :—

DISTRIBUTION OF IMPROVED SEEDS (IN QUINTALS)

Year	Seeds distributed		
1966-67	8,197
1967-68	10,060
1968-69	7,671
1969-70	2,091
1974-75	8,313

The Agriculture Department had recommended the following improved strains of paddy for Thane district : Kolamba-42, Kolamba-540, Zinnia-149, Zinnia-31, Kada-68-1, Bhadar-1303, Garvel-1-8, Early Kolpi-70. In addition to these, some more strains have been recommended recently, which include E-K-70, K-540, Z-63, K-42, Z-149, Z-14, Garvel-1-8, IR-8, Taichung and Ratnagiri-24. For saline lands in the district, Kala-Rala-1-24 and Dhura-Rala-4-10, have been recommended.

Besides the Taluka seed multiplication farms, there is also one seed farm set up by the Agricultural Institute, Kosbad Hill, with a view to supplying seeds and seedlings of vegetables and fruit crops. Under the horticultural development programme the work of grant of loans was entrusted to the Zilla Parishad and Panchayat Samitis. The nursery plants are supplied either from Government nurseries or from registered private nurseries to the cultivators. The nurseries are located at Khutal, Saiwali, Chavindra, Pelhar and Gholwad. The areas covered by the nurseries for fruits are as follows : mango—six hectares, coconut—one hectare, pineapple—one hectare and *chikoo*—half hectare. The nurseries will be in a position to meet the entire demand from prospective orchardists in the district in the near future.

MANURES

The common practice in the district is to manure the fields with dung of cattle, sheep and goats, farm refuse and stable litter. The farmers have since long realised the utility of manuring the fields but have all the same, not been unable to act on it due to the scarcity of indigenous manures on the one hand and the relatively prohibitive cost of chemical fertilisers on the other. However, the use of dung for fuel by making its cakes deprives the farmers of this valuable manure. The dung and the urine of sheep and goats are valuable manures and

owners, usually the Dhangars of flocks of these animals, move from village to village and are paid in cash to halt the animals in fields continuously for two or three nights.

Rural Compost: With the object of supplementing the production of manures, the scheme for preparation of compost manures from organic wastes in villages was started in 1945-46 and intensified in the post-Independence period. A subsidy is granted to farmers for digging the pits. Organic compost manure is prepared in pits which are dug and filled with farm refuse, dung, stable litter, etc., and the contents are allowed to decompose. The pits are opened after a year and the manure becomes available for utilisation. The scheme has become quite popular in recent years. Intensive propaganda is being carried out by Government by inducing the cultivators to dig new pits and empty old ones after five months and to re-fill the same. Each compost-pit produces $2\frac{1}{2}$ tons of ready compost which is sufficient for one acre of non-irrigated land and half an acre of irrigated land. During the First Five-Year Plan 1,105 pits were dug and filled, while in 1968-69 there were 24,881 pits in the district under this scheme which produced 44,426 tons of manure mixture.

Town compost: Besides rural compost, the scheme for making compost from town refuse was started in 1947 under which concerned municipal staff were trained in the method of preparing compost from town-waste. The municipalities in the district prepared town compost to the tune of 3,048 tonnes during 1965-66.

Farm-yard Manure: The Department of Agriculture gives expert advice in adopting better methods of preparation of farm-yard manure. A survey of the existing state of farm-yard manure in each village was conducted, and 240 villages were selected for improving the position of farm-yard manure in the district during the First Five-Year Plan. But it was found that the district is not suitable for increasing the production of farm-yard manure due to the practice of the cultivators to let loose their cattle throughout the year except during monsoon. Cow-dung is also wasted as it is used for *rab*. During the First Five-Year Plan 6,201 pits of farm-yard manure were dug and filled in the district. During 1965-66, the total number of pits filled was 4,310 against the target of 35,562.

Green manure: The department of Agriculture introduced a scheme for distribution of sann-seed for green manuring in 1958-59. Sann-seed is broadcast after the onset of the monsoon. When it attains a maximum vegetative growth in about two to two and a half months it is ploughed and allowed to rot. An acre of land so manured with sann-seed is supposed to have received organic manure sufficient for a period of two or three years. The scheme, viz., Dhaincha green

manuring of paddy fields was launched from 1963-64 in this district. During the year 1965-66, fifty quintals of Dhaincha seed was distributed for green manuring against the target of fifty quintals, covering an area of fifty hectares. Dhaincha seed in 30,000 packets was also distributed to the cultivators free of cost for enabling them to grow Dhaincha crop for seed production. The following statement gives the quantity of sann-seed distributed for green manuring from 1962-63 to 1965-66 and 1972-73 in the district :—

Year			Sann-seed distributed
1962-63	...	...	403 (Bengali maunds).
1963-64	...	...	869 (Quintals).
1964-65	...	...	337 (Quintals).
1965-66	...	...	232 (Quintals).
1972-73	...	...	5 (Quintals).

Chemical fertilisers: The Agriculture department arranges for distribution of chemical fertilisers such as ammonium sulphate, ammonium phosphate, nitrate, urea and phosphate through co-operative societies. The cultivators have realised the value of chemical fertilisers since the last few years. Heavy doses of fertilisers are applied to the fruit-crops and other garden-crops wherever irrigation facilities are available.

Thane district has an assured and heavy rainfall and hence increased use of fertilisers is quite feasible. However, the district has a large proportion of *adivasi* population who are not yet improvement-oriented. They continue with the old agricultural practices like use of farm-yard manure. The Government has been encouraging the farmers to use fertilisers by distributing the same through co-operative societies. The following statement shows the quantum of fertilisers distributed through different block development offices during 1966-67 to 1969-70 and 1974-75 :—

DISTRIBUTION OF CHEMICAL FERTILISERS (IN QUINTALS)

Year			Chemical fertilisers distributed
1966-67	...	...	... 1,11,200
1967-68	...	...	... 81,021
1968-69	...	...	... 56,765
1969-70	...	...	... 75,067
1974-75	...	...	... 1,18,892

PESTS

Pests and plants diseases cause a serious loss to agricultural production. It is not always possible to estimate accurately the extent of loss caused by the pests and diseases separately as it depends upon the severity of infestation in any particular year. There are various pests of crops known to the district. Among them borers are the worst which reduce the yield of the crop. A brief account of the pests and damage done by them is given below :—

Of paddy : *Paddy stem-borer (Khod Kida) (Tryporyza incertulas) :* The moths are twelve to eighteen mm. long with a wing expanse of 37 mm. They are straw coloured with the yellow fore-wings and having one black dot in the centre. Male moths are smaller in size and the black dots are much lighter. The caterpillars are pale yellowish white and smooth and are about 25 mm. long with full-grown with the head having a orange yellow colour. The caterpillars bore into the stems and kill the central shoots called "dead hearts" of the plant. If the infestation takes place later, the shoot bears only white empty ear-heads. The pest is very serious in nature and occasionally it causes huge losses in the yield in certain areas. The damage caused can be recognised by the whitish appearance of the growing shoots. One hundred to two hundred eggs are laid in clusters on tips of leaves which hatch in about a weeks time. On hatching, the caterpillars may first feed on tender leaves for a day or two and start boring into the stem and become full-grown on feeding inside the stems in four to five weeks. Then they pupate inside the stems within a transparent silken cocoon. The pupal period is about eight to ten days. The pest hibernates as caterpillars or pupae in the stubbles left in the fields after the harvest of the crop until the next monsoon.

Army worms (Lashkari alya) (Criphs unipuncta) : The moths are twelve to eighteen mm. in length with a wing expanse of thirty mm. The fore-wings are dark brown with black spots and an irregularly wavy light line near at the ends. Hind-wings are dusky brown. A full-grown caterpillar measures 30 mm. to 37.5 mm. long and is dark greenish with slight yellow tinge. Immediately after hatching, the caterpillars feed on grass or young leaves. They are active only at night and during the day they hide in leaf-sheaths or leaf-whorls or in soil. The pest is sporadic and sometimes causes defoliation of the crop. About 200 to 300 eggs are laid in masses and they hatch in seven to eight days. The caterpillar, on hatching, starts feeding on leaves. They become full-grown in two weeks. They pupate in earthen cells, generally in soil, and their complete life-cycle is of forty to fifty days.

Paddy blue beetle (Nile bhungere) Leptispa : The beetles are slightly rectangular, small and dark greenish blue, smooth, about five

to six mm. in length and three mm. in breadth. The grubs are very small. Both grubs and beetles feed on the surface of leaves of the young paddy crop. The infestation generally takes place before flowering. They eat the green portion of leaves in characteristic and linear patches along veins, which ultimately turn white and dry up. The eggs are laid on leaves close to their tips which hatch within four to five days. The grubs on hatching start feeding on the green portion of the upper surface of leaves. Full-grown grubs pupate on the leaves from which adults emerge after four days. The pest is active from July to September and several generations may occur during a season. All the stages of the insect are found on paddy plants. The pest is supposed to hibernate in wild grasses during the off-season, probably as an adult.

Leaf-roller (*Pane gundalnarya alya*) (*Pnaphato crocis medinalis*): The adult moth is small with yellowish brown wings. The full-grown caterpillars are green in colour and found inside the rolled leaf. The caterpillar rolls up the leaf and feeds on leaves from inside by remaining in the rolls. The green caterpillars, on hatching from the eggs laid on the leaves, start rolling the leaves and become full-grown by remaining inside and feeding on the leaf. Life-cycle of this pest has not yet been worked out in detail.

Of coconut: *Rhinoceros beetle* (*Gyendya bhungera*) (*Oryctes rhinoceros*): The beetle is stout and elongated. Body colour is light brown when freshly emerged and later turns brown and finally becomes black. Ventral surface is brown. Full-grown grub is stout fleshy about 75 to 125 mm. long in its natural position and is always curled up ventrally. Only beetles are harmful as they bore into the tender parts of the plant biting fibrous portions. The injury can be easily recognised by a series of holes in the fronds and the fibrous mass oozing out of them. In case of severe infestation the tree dies. The beetle passes its early stages in the manure-pits or sometimes in decomposing organic matter at the top of a dead palm. Female lays eggs in decaying organic matter generally found accumulated in coconut gardens or in manure-pits. The eggs stage lasts for eight to fourteen days. Larvae feeds on decaying organic matter and becomes full-grown in four to five months. Pupal period lasts for twenty to sixty days. A generation is completed in about ten to twelve months.

DISEASES

Besides the damage caused by pests, the crops in the district suffer from various plant diseases. The important diseases that affect the various crops in the district are described below :—

Of Paddy: The paddy crop is affected by many diseases, the important ones being *Karpa* (*Piricularia oryzae*), *Kadarkarpa* (*Xantho-*

monas oryzae), and *Tikka* (*Helminthosporium oryzae*). The diseases cause extensive damage to the paddy crop.

Karpa (*Piricularia oryzae* Cav) : The blast of rice is the most destructive of crop-diseases. It is an air-borne disease and occurs on seedlings in July and August and on grown-up crop between September and November. The symptoms on leaves are very prominent but the disease may appear on other parts of the plants also. Broad spindle-shaped spots with pale ashy centres and brownish margins are seen on the leaves. In case of severe infection such spots coalesce and the whole lamina is destroyed. In case of neck infection it may be confined to the neck region or the individual branches of the ear may also be infected and turn brown or black. These infected branches often break and fall off, or the whole inflorescence may break off at the rotten neck resulting in loss of yield. The grain borne on the ears with infected necks are mostly chaffy. The main source of infection is seeds, plant debris and wind. Damage on account of this disease is estimated approximately at 5 to 10 per cent when attack is mild and 45 to 75 per cent when attack is severe.

Kadakarpa (*Xanthomonas oryzae*, Mueda and Ishiyama) Dowson : The bacterial blight of paddy causes decrease in the yield of crop up to 20 to 25 per cent. It is a seed-borne disease occurring mostly between July and September. The main source of its infection is the affected seed, volunteer paddy plants, plant debris of previously affected crop and sucking insects. The disease starts as pale greenish or greenish yellow lesions along one or both margins of the leaf. These lesions spread length-wise often coalescing with one another and thus the margins are blighted and become straw yellow in colour with light brown wavy margins. In diseased leaves the drying occurs from tip downwards along the margins and advances towards the mid-rib. Eventually the whole leaf dries up. When the disease is severe the whole field presents a burnt up appearance.

Tikka (*Helminthosporium oryzae*, Bredade Mann) : The helminthosporium leaf spot of paddy causes damage upto 6 to 10 per cent. It is a seed-borne as well as air-borne disease. It occurs mainly between July and September. The main source of its infection is plant debris and adult plants show small pin-head-like brown greyish spots with centre and yellow halo. There may not be seed setting if the attack is at grain formation stage.

Of chikku : *Chikku che phalanchi gal* (*Phytophthora palmivora* Butl) : The fruit drop of *chikku* causes damage to the extent of 10 to 20 per cent of the crop. It occurs mainly during the monsoon. Affected plant debris and fruits are the main source of its infection. The symptom of this disease is the sudden dropping off of some mature

and immature fruits. In case of severe attack heavy shedding of fruits is observed. On close observation of affected fruits a whitish mycelium is seen at the base and in severe cases the entire surface of the fruit gets involved. Such fruits possess a fermentative odour and ultimately rot. Immature, diseased fruits dry up and get shrivelled. Leaves, stems and crown are not affected by this disease.

Of Mango : *Ambyavaril bhuri* (*Oidium mangiferae* Berih): The powdery mildew of mango occurs on blossom from January to February and results in poor setting of fruits. When the attack is severe, the percentage of loss in yield is nearly cent per cent. It is an air-borne disease. When young fruits are attacked they wither and drop down. *Bhuri* accompanied with hopper (*Indiocerus* sp.) may be instrumental in the spread of the disease. Wind and affected inflorescence may be the main source of its infection. The main symptom of this disease is the appearance of whitish growth of fungus on the inflorescence which later on turns black.

Bandgul or *Loranthus* of mango is a flowering parasite which attacks branches of mango-trees by sending haustoria inside the tissues to derive nutrition. Affected branches do not thrive well and their yield is poor. This parasite spreads from tree to tree through seeds. Fruits which are red and have sweet sticky seeds are eaten by birds and if by chance these are deposited on branches, the seed germinates and a new plant *Loranthus* comes up. The only means of effective control is to cut down the parasite below the point of attachment along-with the mango branch.

Of banana : *Kelivaril kevada* (*Virus*): The chlorosis of banana causes damage to the extent of 40 to 60 per cent when the attack is severe and sometimes the damage is hundred per cent. Infected suckers and virulent aphids are the main source of infection of this disease. The symptom of this disease is the distribution of a mosaic-like discontinuous linear or spindle-shaped streakings generally distributed all over the lamina or in bands of half an inch or more wide extending from mid-rib. Severely-affected leaves obtain a greenish yellow mottled look. Affected plants remain stunted and their growth is checked with the result that they do not bear fruits.

Of Vegetables : *Rope Kolamadane* (*Pythium debaryannum*, Hesse): The damping off in vegetable crops such as tomato, brinjal, chillis, cabbage, cauliflower etc., is a soil-borne disease which causes serious damage to seedlings and makes them useless for transplanting. The main source of its infection is the soil-borne fungus of this disease. It occurs mainly between June and August when the seedlings are grown. The symptom of this disease is the appearance of patches in seed beds consisting of toppled seedlings which may extend to larger area. The

affected seedlings turn pale green in colour and show girdle of brown decaying cortex on collar region.

Of Cabbage: *Kobivaril ghanya rog* (*Xanthomonas compestris* Pammel) Dowson: A black root of cabbage which causes damage to cauliflower and *knol-kol*. It is a seed-borne disease which occurs mainly between October and January. Its main source of infection is affected seed and plant debris in the soil. The symptom of disease is the chlorosis of the leaf margins which extends towards the centre of the leaf. The veins and veinlets of the affected leaf turn brown and finally black. In the advanced stage the infection may reach to root system. From the affected plant parts bacterial ooze may also be seen. In the later stage the cabbage head rots and softens and gives an awful smell.

Of Bhendi: *Kevada (Virus)*: The yellow vein mosaic of *bhendi* (lady's finger) mainly occurs in monsoon. It is a highly infectious disease transmitted by white flies and may damage the crop to the extent of 40 per cent to 100 per cent of the total crop. The disease is characterised by clearing of veinlets followed by clearing of veins, vein swelling, slight downward curling of leaf margins and twisting of petioles and general dwarfing and retardation of the growth of the plant.

Of Arecanut: *Arecanut koleroga* (*Phytophthora palmivora* Butler): It is a very serious disease victimising arecanut produced along the coastal line of the district. It is a fungus disease and is noticed two or three weeks after the onset of the monsoon. Under conditions of milder infection the whitish growth of fungus is seen on the nuts. In case of severe attack large number of nuts drop down.

TENURE AND TENANCY

Tenures: There was a complexity of tenures in Thane district as in many other parts of the State in the past. The system of tenures changed from time to time and from place to place. It is, however, interesting to study the tenures as they existed in the past. Hence, some relevant extracts bearing on this subject from the former edition of the *Thana Gazetteer* are reproduced below.*

"The tenures of the district belong to two main classes, survey and special tenures. By far the largest part of the district is held on the survey tenure of ownership with power to transfer, subject to the payment of a rent which is liable to revision at the end of thirty years."

*For details refer to the *Gazetteer of the Bombay Presidency*, Volume XIII, Part I Thana District, 1882.

"When a survey-holder does not himself till the land he sub-lets it either on the half-share or *ardhel*, or on the contract or *khand* system. Under the *ardhel* or half-share which is the most common form of sub-letting, the survey occupant pays the Government assessment and contributes half the seed and one bullock for the plough, and in return he takes half the gross produce, including half of the straw at harvest time. This system is commonest in the wilder inland tracts, where the tenant is too poor to undertake the whole responsibility of cultivation."

"The contract system is called *khand*, or *makta*, and is also known as the farmer's share system or *svamitva*. Under it the survey occupant pays the Government assessment and sub-lets the land on condition of receiving a share called *svamitva*, which varies in different parts of the district from six to twelve *mans* the acre. The tenant provides seed, plough, bullocks, labour, and manure, except such bush-lopings and grass as he may cut from the holder's upland."

"The special tenures may be arranged under two groups, those that almost entirely ceased on the introduction of the revenue survey and those that are still continued. Of the special forms of tenure that have almost entirely merged in the revenue survey tenure. Briefly they are the *dhep* or lump also called the *taka*, *toka*, or *hon*, the *kas* or estate, the *nangarbandi* or plough system, the *suti* or special remission settlement, and the *pandharpesha* or highclass villagers settlement.

"Under the *dhep* or lump system, which seems to have been handed down from very early times, a certain quantity of grain was paid for an unmeasured plot or lump of land. A modification of this system was found in Kolvan, now Vada and Shahapur including Mokhada. Under this modification, the land was divided into unmeasured plots of mixed rice and upland, each known as a *kas* or estate. A plough cess or *nangarbandi* was also in force in the wilder parts of the district. Under it a husbandman could till as much land as he pleased and as long as he pleased, provided he paid a certain amount of grain on every pair of bullocks he used."

Suti: The term *suti* was very rarely used in the old British records; that when it did occur it was explained as an hereditary occupancy right subject to the payment of the Government rental; that it did not carry with it the right to transfer the land; and that it was limited to rice lands and did not extend to hill-grain or *varkas* lands. It was less favourable to the land-holder than the survey tenure, and disappeared on the introduction of the survey settlement. The people still speak of rice land held under the survey tenure as *suti*, and *sutidar* is used with the same meaning as *Khatedar* or survey occupant.

Pandharpesha : "Formerly some of the higher classes of villagers, who represented themselves or their ancestors as the original reclaimers of the land from waste, were allowed to hold their land at special low rates. These classes were known as *pandharpeshas*, that is the villagers proper.

They included Brahmans, Prabhus, Goldsmiths, Blacksmiths, Copper-smiths, Carpenters, Saddlers, and others who did not themselves till the soil. To make up for the special expense they incurred in hiring labour, they were allowed to hold their lands at specially easy rates. The practice is said to have been older than the time of the *Peshwas*.

Of tenures different from the survey tenures, besides grant or *inam* lands held either rent-free or on the payment of quit rent, there are four local varieties, the service or *vatan*, the special service or *izafat*, the embankment or *shilotri*, and the leasehold improperly termed *Khoti*.

Exclusive of fifty-three leasehold villages in Panvel and one in Mahim which were granted in *inam* by the British Government and of seventeen alienated or *saranjami* villages in Panvel, which are held under a treaty passed between the British and Angria's governments in 1822, there are seventy-five *inam* villages in the Thana district. Soon after the acquisition of the district by the British, a proclamation was issued (1st December 1819) calling on all who had titles to rent-free or quit-rent land to produce and register them. None of the *inam* villages have been surveyed excepting Nanala in Salsette. In other cases the quit-rent paid is one-eighth of the approximate survey assessment of the village together with the former or original quit-rent. In most *inam* villages there are old occupants whose rents are not raised. Tenants taking new land hold on the yearly or *eksali* tenure, and they pay rents fixed by the *inamdars* which are generally about the same as the rates prevailing in the surrounding Government villages. *Inamdars* take their rents either *murkabandi* or *mudkebandi*, also known as *mudabandi* that is a certain share of each *muda* of grain ; or *dhepbandi* that is a certain amount of grain levied on a lump area ; or *bighavni* that is a certain *bigha* rate. As a rule cash is taken in place of grain. The condition of the occupants in *inam* villages does not greatly differ from the condition of landholders in Government villages. About one third of the *inamdars* are in debt, and have mortgaged or sold their estates. The frequency with which they apply to the revenue authorities for assistance, under section 86 of the Land Revenue Code, seems to show that they find much difficulty in collecting their rents.

For detached pieces of *inam* land under Bombay Act VII. of 1863, six hundred title deeds have been issued for personal grants, *jat inams*, and eight hundred and fifty-six for charitable and religious grants, *dharmadaya* and *devasthan inams*."

Vatan settlement : "The grants or *vatans* consisted of cash and land in about the proportion of six to seven ; four-fifths of the portion received by those actually serving was cash. Government in return for an expenditure on hereditary service grants double the amount spent in maintaining stipendiaries, received the service of a body of persons three-fifths of whom were underpaid hirelings unconnected with the grantee and with no special motives for zeal or good conduct. The right of Government to receive important service from the hereditary district officers in return for their emoluments had always been recognized. But, during the early years of British rule, it was feared that, by utilizing hereditary officers to any extent, undue power would be thrown into their hands and would be used to the injury and oppression of the people. On the other hand, the introduction of the revenue survey settlements rendered nearly useless the services which these officers had hitherto rendered".

"In Thana district hereditary officers were found only in Mahim, Kolvan, Murbad, Kalyan, Bhiwandi, Panvel, and Nasrapur. The emoluments in cash and land of ninety-four officers, *deshmukhs*, *deshpandes*, *desais*, *chaudhris*, *adhikaris*, *sarpatils*, *sarkhols*, *kulkarnis*, and *thanges* or *kulkarnis'* messengers, amounted after deducting the quit-rent to £ 4978 (Rs. 49,780)." "This settlement has been recognised by section 15 of the Bombay Act III of 1874. A special officer Mr. Vishnu Ramchandra is now (1882) employed in issuing hereditary service, title deeds or *vatan sanads*."

Sharakati villages : "Sharakati or share villages are villages whose revenues are divided between Government and a private holder, or between two private holders. Of twelve *sharakati* villages, seven are part private or *inam* and part Government ; three are part private and part special service tenure or *izafat* ; and two are part ordinary service or vatan and part Government. The *izafat* or special service tenure is enjoyed by hereditary Government officers, chiefly *deshmukhs* and *deshpandes*". On the English acquisition of the district 124 *izafat* villages, found in the hands of hereditary officers, were resumed and managed by Government. In 1830 the Principal Collector reported that twenty of these *izafat* villages had been restored, and that he proposed to restore the rest. He stated that these villages formed part of the lands granted to hereditary officers, and that under the Maratha government had the holders wished to give them up on account of their not producing the full revenue, they were not allowed to do so, but the full rent was deducted from the amount payable by Government to them on account of their claims on the general revenue. Acting on this view, in Resolution 4010 of 12th December 1831, Government directed that the villages should be restored. But most *izafatdars* declined to take them back.

There are at present (1882) in all thirty-eight *izafat* villages in the Thana district, and three share or *sharakati* villages, Atgaon, Tuta and Khativli, which are held one-half in *izafat* and one-half in *inam*."

"Salt marsh reclamations are of three kinds, *sarkari* those effected by Government; *shilotri* those effected by a single proprietor; and *kularag* those effected by a body of cultivators The Government reclamations are repaired at state expense, the mamlatdar estimating the cost of the repairs, which are carried out twice in the year, in May before the rains and in September towards their close The mamlatdar, district *karkun*, *talati* and *patil* see to the repairs. They are always well carried out, and complaints of carelessness are rarely if ever received. In some cases, especially in Bassein, a yearly lump-sum is paid by Government for the embankments, and, if this is not enough, the *patil* and the husbandmen have to finish the repairs without pay. *Shilotri khars*, or proprietors reclamations, stand in the public accounts in the name of the proprietor. Formerly it was usual for the proprietor to take one *man* of rice a *bigha* for the repairs, now the contract, *khand makta* or *svamitva*, system has been applied to these lands and from five to ten *mans* an acre are taken as rent. The proprietor is responsible for the repairs, and he makes private arrangements with his tenants. *Kularag* or peasant held reclamations are shown in the accounts, with a share of the land and of the assessment entered against each cultivator's name. All combine for the repairs, the head man calling the rest when their services are wanted. Complaints of the repairs being scamped or of a sharer refusing to do his part of the work are unknown."

Leasehold villages: "The term *khot* or revenue farmer is incorrectly applied to eighteen holders of large estates, comprising fifty-three villages in Salsette. These estates have in all cases been granted by the British Government."

"In almost all of these leases the rental is specified in *mudas*, or rice measures, and not in cash. This *muda* calculation was made according to a system peculiar to Salsette, called the *tijai* or one-third. Under this system the 'Government rental' is found by multiplying the quantity of *dhep* by two, dividing it by three, and multiplying the quotient by twenty the number of rupees at which each *muda* of land is assessed.

Except the Kurla and Malad estates, which were given in exchange for land in Bombay, the estates were granted to encourage the investment of capital in land, the increase of population, and the growth of better crops. Except the Kurla, Malad, Pavai and Goregaon estates, which are held in free simple or freehold, these leased villages were charged fairly high rentals, and in most cases were subject to the

following conditions. Lands occupied at the time of the lease on the *shilotri*, or, according to some deeds, on the *suti* tenure, were not to become the lessee's unless he satisfied or bought out the incumbents. The happiness and prosperity of the people were to be promoted, and the lessee was to protect and befriend them. The lessee was to build reservoirs and embankments, to sink wells, and to grow the better class of crops. The rates of assessment were not to be raised, and no innovation was to be introduced without express sanction. The lessee was to continue all village charitable and religious allowances. Waste land was granted free for forty years. On the forty-first year all land, except what was totally unfit for tillage, was to be assessed. The lessee was to recover and pay into the treasury, over and above the amount mentioned in his lease, all amounts due on leases granted in the estate. The village was not to change hands without Government leave. The lessee was to possess and exercise the authority of a farmer under Chapter VI of Regulation XVII of 1827. But he was to exercise no magisterial or judicial authority, unless it was duly conferred on him. He was not to make or sell opium, poisonous substances, tobacco, or hemp flowers. The Collector was to have power to inspect the village, and examine what improvement and progress were made. Suits regarding the lease were to be brought in the District Court. Any new system of revenue introduced by Government in other villages of the district was to be applicable to these grant villages."

"..... Although these leaseholders style themselves proprietors, they cannot claim the ownership of the soil, for the Court of Directors were most reluctant to part with the ownership of the soil and its alienation was jealously watched"

"Another large estate of 3,688 acres, exclusive of salt marsh, was granted by deed dated 1870 to Ramachandra Lakshmanji of Bombay, on a lease of 999 years, in the villages of Ghodbandar, Bhayandar, and Mira. This estate was granted because the villagers refused to keep the large Bhayandar embankments in repair.

The conditions attaching to the grant were that the lessee should pay a yearly rent of £ 679 (Rs. 6,790); that he should keep the embankments, dams, and sluices in repair; that he should demand no rent from *inamdars*; that he should demand only survey rates for *suti* and *varkas* lands; that he should keep boundary marks in repair; that he should pay *patils* and hereditary officers claims and allowances; that he should not interfere with rights of way; that he should surrender land free of cost for the Bhayandar railway station; that he should give notice of the assignment of lands; that he should not assign lands without leave; and that the salt marsh lands were liable to resumption if not reclaimed within twenty years."

Gatkuli and Eksali : "*Gatkuli* and *Eksali* tenants were tenants at will, or yearly tenants holding their land from Government from year to year, on such terms as Government chose to impose."

The most predominant tenure prevailing in the district is the *Ryotwari* tenure of heritable and transferable occupancy rights of land continuable in perpetuity on payment of the Government demand. Earlier in 1901 it was slightly modified in respect of lands granted by Government which were subjected to certain restrictions about transfer or sale and the new occupancy rights were called new or restricted tenure. The new tenure applied only to the unalienated lands, and was introduced with the object of restricting injudicious transfers in backward areas and safe-guarding the lands of backward classes against falling into the hands of *savkars*. The *Ryotwari* tenure was based upon a complete survey, soil classification and fixation of land revenue assessment upon each individual field separately. There used to be another tenure of *Inam* lands which were gifted or granted by Government for meritorious services in the past or in lieu of or on condition of some continuing service useful to the Government or to the village community. *Inam* lands were held free of land revenue. There were five classes of *Inams* in the district, viz., Political or *Saranjam Inams*, Personal *Inams*, Hereditary *Watan Inams*, village servants useful to the community and Government, *Patels* and *Mahars*; and *Deosthan Inams*. All these *Inams*, excepting *Deosthan Inams* held by religious institutions or for religious services, have now been abolished under various measures of land reforms. The process of abolition of intermediary interests in lands is thus being completed in the district. A record of rights in land is maintained by the Revenue Department for each village separately. At present there are seven *Watan* Acts applicable to Thane district. The statement given below shows the details regarding the area resumed, area re-granted and remaining to be re-granted under the various Land Tenure Abolition Acts as also the number of compensation claims, decided and pending under these Acts.

Area under the various Acts to be re-granted is as under :—

	Acres	Gunthas	Chains
(1) Maharashtra Revenue Patels (Abolition of Office) Act, 1962.	10,542	01	4
(2) Bombay Inferior Village Watans Abolition Act, 1958.	2,308	13	5
(3) Bombay Pargana and Kulkarni Watans Abolition Act, 1950.	1,297	00	12
(4) Bombay Merged Territories (Miscellaneous Alienations) Abolition Act, 1955.	17	30	00
(5) Bombay Service Inams (Useful to Community) Gujarat and Konkan Abolition Act.	2,669	4	12

STATEMENT SHOWING THE IMPLEMENTATION OF LAND TENURE ABOLITION ACTS

(Area in acres, gunthas and chains)

Serial No.	Name of Act	Date of implementation	Total area resumed	Area in respect of which O. P. is paid			Area regranted	Area remained to be regranted			Compensation claims
				a.	g.	c.		a.	g.	c.	
(1)	The Salsette Estates (Land Revenue Exemption) Abolition Act, 1951.	1-3-1952	3,923 36 4	3,923 36 4	3,923 36 4	3,923 36 4	3,923 36 4	..	..	..	..
(2)	Maharashtra Revenue Patels (Abolition of Offices) Act, 1962.	1-1-1963	27,775 38 14	17,725 3 6	17,233 37 0	10,542 1 4	3,220	3,201			
(3)	B.I.V.S. Watan Abolition Act, 1958	1-8-1960	7,601 5 12	5,292 32 7	5,292 32 7	2,308 13 5	1,597	1,539			
(4)	Bombay Pargana and Kulkarni Watan Abolition Act, 1950.	1-5-1951	10,636 6 0	9,539 5 4	9,539 5 4	1,297 0 12	206	206			
(5)	Bombay Merged Territories (Miscellaneous Alienations) Abolition Act, 1955.	1-8-1955	1,076 38 8	1,058 8 8	1,058 8 8	17 30 0	7	7			
(6)	Bombay Service Inams (Useful to Community) Gujarat and Konkan Abolition Act.	1-4-1954	4,231 16 12	1,562 12 10	1,562 12 10	2,669 4 12	1	1			
(7)	Bombay Personal Inam Abolition Act	1-8-1953	....	....	....	....	299	291			

The work of implementation of the Salsette Estate (Land Revenue Exemption) Abolition Act has been completed in this district.

Tenancy: Prior to the enactment of the Bombay Tenancy Act, 1939, the relations between the landlords and tenants in the State of Bombay were governed under the provisions of the Bombay Land Revenue Code 1879, the Mamlatdars Courts Act 1906, the Khoti Settlement Act, 1880 and such other enactments applicable to the local area. In order to remedy this state of affairs the Bombay Tenancy Act, 1939, was passed as a protective measure for improving the conditions of tenants of agricultural lands. This Act conferred important benefits on all tenants. It also created a new class of privileged tenants to be called "protected tenants" who were eligible for special benefits including the rights of permanent tenancy. The Bombay Tenancy Act, 1939, was passed by the legislature which was applied from 1st April 1941 to Thane district partially, excluding the area in the province, i.e., villages held by Khots under Khoti Settlement Act, 1880. This Act was amended by the Bombay Act XXVII of 1942 allowing sub-letting by or on behalf of persons in defence services. Thereafter the Act was amended on 8th November 1946.

The working of the Bombay Tenancy Act, 1939, as amended in 1946, tended to improve the life of the tenants though certain difficulties came to the surface due to the multiplicity of tenures and usages prevailing in the different parts of the State. After India's Independence it was felt necessary to shape a definite policy of agrarian reforms so as to achieve improved production and attainment of social justice. For safeguarding the interests of tenants, the Bombay Tenancy and Agricultural Lands Act was implemented to achieve this objective. This Act was amended in the years 1952 and 1956 to ensure removal of all intermediaries and to make the tiller of the soil the occupant of the land. Compulsory purchase of land by the tenants was provided with effect from 1st April 1957, which is celebrated as a Tillers' Day. According to the Act of 1969 a tenant who was in possession of land on 15th July 1955 and who on account of his being dispossessed before 1st April 1957 otherwise than in the manner and by an order of the Tahsildar as provided in law is not in possession was deemed to be put in possession of and to have purchased the land on the date on which the land is restored to him.

The information about the tenants up to 31st March 1972 is as under :—

1. Protected tenants	...	...	1,02,171
2. Ordinary tenants	...	...	54,906

RURAL WAGES

Thane is a typical district where manufacturing industries have now developed to be a significant factor in its economy. These industries do not, however, appear to have diverted workers from agriculture to factories in urban areas. The actual number of workers working on land had in fact increased much more than the decade rate of growth of the district population in 1961. In other words, the developing industries have not yet relieved the increasing pressure on land or the growing under-employment in rural areas to any appreciable extent. The percentage of cultivators was a little higher in the district but that of agricultural labourers was very low in 1961, while the proportion of workers engaged in fishing, quarrying of sand, and gathering or processing of forest produce was higher. There was a comparable increase in agricultural labourers from 9.86 per cent in 1951 to 21.06 per cent in 1971 in the district.

Casual labour: The use of tractors in the tillage of land is hardly noticed either because of the high expenditure it implies or because of the limitations placed upon its use by the nature of the tract. Whatever be the reasons which have hitherto kept this tract away from mechanisation, it is true that the importance of manual labour in all the operations has so far been unrivalled. Most of the heavy work is done by men, while lighter work is entrusted to women and children. Ploughing is carried out by male workers whereas operations such as weeding, transplanting, threshing and the like are usually done by female and child labour. There is no dearth of labour-supply in this district, where very few cultivators have a piece of land that can assure them a subsistence. As the agricultural operations extend over a small part of the year, the casual labour is compelled to accept household work on petty terms during the rest of the year. When, however, the agricultural operations are in full swing and create a rush of work at the farm, they make a pressing demand on casual labour so that it is often difficult for the employers to secure it. Casual labour is paid mostly on cash terms, although the mode involving payment partly in cash and partly in kind or sometimes wholly in kind is also in vogue in this tract. The emoluments to be offered to casual labour depend upon a number of factors. In such parts of the district where new industries are being opened up or where some projects are in progress or in places in the vicinity of railway stations, casual labour is dear, as it derives alternative openings perhaps more lucrative than casual field operations. For instance, Kalyan with its railway junction has the largest proportion of workers employed in transport. The proportion of workers in manufacturing industries is very high in Thane, Kalyan and Bhiwandi talukas. It is significant that leaving the coastal talukas

of Dahanu, Palghar and Vasai and the industrially developed talukas of Thane, Kalyan and Bhiwandi the remaining talukas in the district do not reflect any influence or impact of the nearness of Greater Bombay on the labour force.

Wages are found to vary in accordance with the kind of agricultural operations. Usually payment is made on a daily wage basis at a rate which is higher for operations involving heavy manual work. Men-labourers are usually paid higher wages than women-labourers or children.

Table No. 22 gives the statistics of wages paid to various types of labourers for some years from 1894 to 1921 in the district.

The following statement gives the statistics of annual average rates of agricultural wages collected from three centres, viz., Dahanu (Taluka Dahanu); Gorhe (Taluka Wada), Badlapur (Taluka Ulhasnagar). The wage-rates are generally higher at Badlapur due to its proximity to Bombay :—

		(In rupees)				
Centre	Year	Average wage-rate for field labour		Carpenter	Black-smith	
		Male	Female			
(1)	(2)	(3)	(4)	(5)	(6)	
Dahanu ..	.. 1971	2.79	1.94	10.00	10.17	
	1972	3.17	2.04	10.00	10.00	
Badlapur..	.. 1971	4.41	3.91	15.83	12.40	
	1972	4.04	3.54	10.00	..	
Gorhe ..	.. 1971	3.00	1.67	..	..
	1972	2.79	1.90	10.00	..	

At present, the rates of wages oscillate from Rs. 2.75 to Rs. 5.00 per day for skilled agricultural labourers while for unskilled labourers it is between Rs. 1.50 and Rs. 3.00 per day in the district. The rural wages are higher at the places where industrial estates and cottage industries have been established.

Annual Servants: Annual servants (*saldars*) are employed in the district by those cultivators whose holdings provide continuous and regular employment throughout the year, mostly in the coastal garden lands. A *saldar* usually does all types of farm-work and his services are available to his employer at will. Generally the period of contract with a *saldar* extends over a period of one year. Not infrequently do the *saldar* borrow money from landlords and mortgage their services with the latter. A number of cases of bonded labourers were found in

Thane district in the past. The emancipation of bonded labour has improved the socio-economic lot of the poorer labourers.

According to the survey regarding the agricultural wages in Thane district, the payment to a *saldar* varies between Rs. 250 and Rs. 650 *per annum* depending upon the nature of work involved. The young boys between 15 and 18 years of age are also employed as *saldars* and are paid upto Rs. 150 *per annum*. Besides the cash payment, the *saldar* is offered a pair of *dhoti*, a shirt, a *dupatta*, a cap and shoes etc. A *saldar* is also provided meals three times a day.

In Thane district it is also customary to employ a servant on a monthly basis, the payment being Rs. 50 to 60 per month besides food.

Balutedars : The village artisans (*balutedars*) were considered as the essential part of community-life in the past. The system is, however, on the decline though it has not altogether disappeared from the district. Usually they are paid annually for the services rendered by them. The carpenter (*sutar*), the blacksmith (*lohar*), the cobbler (*cham-bhar*) and the barber (*nhavi*) are the conspicuous ones among them.

Now-a-days there is a marked tendency to make payment in cash rather than in kind so that any person other than the hereditary *balutedar* could be asked to perform the job. The payment to *balutedars* includes food-grains, pulses and other cereals.

FAMINES

The district has been generally free from natural calamities of any great magnitude. Even though monsoon inundations occur frequently in some parts of the district, destructive floods are of very rare occurrence. The *Old Gazetteer* of Thane district has given a good account of famines which is reproduced below :—

1618 and 1878 : “The earliest famine of which information is available took place in 1618. In that year, at Bassein, the famine was so severe that children were openly sold by their parents to Musalman brokers. The practice was stopped by the Jesuits partly by saving from their own allowances and partly by gifts from the rich. The great famine of 1790 is mentioned as having for years destroyed progress in Salsette. In 1802 on account of want of rain, the crops failed both in the Konkan and in the Deccan districts bordering on the Godavari, and large numbers came into the Konkan and were fed by private charity. Next years the crops promised well, but the desolation of the North Deccan by Holkar and Sindia and a complete failure of rain in the Konkan produced a famine. Government afforded relief by giving employment on the Bombay-Thana road, which was then being made, paying to each

labourer a daily wage of one old pice and 7/10ths of a pound (one *sher* of twenty-eight *tolas*) of rice. In Salsette the monthly average of persons employed by Government was 3,162. Government also opened a grain shop at Uran, where rice brought from Bombay was sold at 5½ pounds (1 *payali*) the rupee. In September 1804 when Lord Valentia passed from Panvel to Khandala, he found several dead bodies lying along the road and dogs and vultures disputing over them. So great was the mortality at Panvel that Captain Young, Commissary of Army Stores, had to employ twelve men to bury the bodies. Besides feeding every day about twelve thousand people and giving employment to five thousand in carrying grain from Panvel to Poona, Government established in Salsette a Humane Hospital for the relief of those who were unable to work. The monthly average of those who were admitted into the hospital was about one hundred. In 1824-25 a failure of rain was followed by very scanty crops in Dahanu, Bassein and Salsette. Grain became very scarce and the price rose to famine rates. No cases of death from starvation were recorded. To help the poorer classes in their distress Government spent £1,550 (Rs. 15,500) in clearing reservoirs. In 1837, in Sanjan and Bassein there was a failure of crops caused by want of rain in the later part of the season, and in Kalyan late heavy rain, which fell after the crops were cut, caused much injury. To relieve distress remissions of about £4,500 (Rs. 45,000) were granted. In 1838-39 want of rain caused a failure of crops over the whole district, remissions of about £28,784 (Rs. 2,87,840) had to be granted. In Salsette distress was relieved by the timely arrival of rice from Malabar. In 1848 there were long breaks in June and July and again in September. Most of the salt rice-land crop failed. In 1850 the rainfall was much below the average and the coast-tract suffered severely from drought. The remissions granted in sweet rice-lands amounted to £694 (Rs. 6,940), and in salt rice-lands to £1,103 (Rs. 11,030). In 1855 and the two previous years the crops were more or less affected by want of rain. In 1853 the failure of the latter rains injured the crops and £1,504 (Rs. 15,040) of revenue were remitted. In 1854 in Kolvan the crops were harmed by the late rains; in Bassein the salt rice-crops were partially injured by worms; and in the coast villages great damage was done by a hurricane and remissions amounting to £1,135 (Rs. 11,350) were granted. In 1855 the rainfall was very scanty. The monsoon began favourably, but after the middle of July so little rain fell as to cause much loss. Nearly one-sixth of the area prepared for tillage remained waste, and much young rice ready for planting was left to wither. In the beginning of September rain again fell plentifully and continued till

the end of the month. In spite of this reasonable fall remissions amounting to £ 3,010 (Rs. 30,100) were granted. In 1877-78 the rainfall was unfavourable in the coast sub-divisions of Dahanu and Mahim, and the crops suffered seriously. In Mahim much land bordering on the sea remained waste, and in Vada, Shahapur, Murbad and Bhiwandi, the crops were injured."

The following account about famines is reproduced from the *Gazetteer of Bombay Presidency*, Vol. XIII-B, Thana and Jawhar 1904, 1913 and 1926 :—

1896-97 and 1899-1902 : "In 1899-1900 the rains failed and the district was slightly affected by famine. The total area affected was 345 square miles, and the population 1,01,000 or 12 per cent. of the total. Relief works were opened in January 1900 and continued till November. In 1899-1900 the highest daily average number relieved was 10,301 and 4,189 were in receipt of gratuitous relief. The death rate per mile was 67·82. The total deaths from all causes on relief works were 322, of which 95 were attributed to dysentery and diarrhoea and 134 to cholera. The percentage population of the sexes among relief workers in the district was 37 males, 46 females and 17 children. The average wage per worker unit was Re. 0-1-5. The table No. 23 gives the details of famines of 1896-97 and 1899-1902.

Again in the year 1901-02 it was both scanty and insufficient. But the State escaped the famine that affected the rest of the presidency "

1907-08 : "In the year 1907-08 the rainfall at Jawhar was untimely, and as the later rains failed altogether the *kharij* crops suffered much but on the whole the rainfall was good during the last eight years."

1918-19 : "In the year 1918-19 the rainfall at Jawhar was deficient and failed entirely in October. This failure of the rains affected the paddy crop severely. In the following year rain was again abnormally scanty and deficient."

"In 1918-19 scarcity was felt the rainfall being insufficient and the crops completely failing. Relief works were opened in April and closed in June. 61,581 units of labourers were engaged on relief works."

"In 1918-19 the rainfall at Jawhar was deficient and capricious. The crops were damaged wholesale with the single exception of *Tur*, *Varai* and *Nagli*. The rainfall during other years was on the whole good."

1941-42* : "Failure of rain was the cause of scarcity in coastal villages of the district. Scarcity was declared in 28 villages of Dahanu taluka and 69 villages of Palghar taluka. Gratuitous relief in the form of weekly doles was given in the affected area to the

*Statistical Atlas of Bombay State, 1950.

extent of Rs. 43,500. Scarcity works were also opened for which grant of Rs. 1,94,000 was sanctioned. Cheap grain shops were opened at the cost of the Government from contributions made by the public and also from the permanent famine relief fund of the province at various places in the affected area. Free kitchens were also opened. *Tagai* of Rs. 30,000 was freely distributed for purchasing seeds etc., for the use in the season of 1942-43 to the indigent cultivators."

There was no famine in Thana district from 1942-43 to 1964-65.

1965-66 : "During 1965-66, 238 villages with 1,85,864 population were affected by the scarcity conditions on account of failure of crops. Eighteen relief works were opened which provided employment to 6,825 persons in the district."

1966-67 : "During 1966-67, 45 villages with 24,496 population were affected by scarcity conditions due to failure of crops in the district. Four relief works were opened which provided employment to 1,957 persons in the district."

FLOODS

1939 : "During the year 1939 the Ulhas and the Kalu rivers were flooded due to heavy rains. Shops in the heart of Kalyan town were washed away. The damage was estimated at Rs. 60,000. The agriculturists did not suffer much and no relief measures were taken."

1941 : "The Surya and Vaitarna rivers in Palghar taluka were heavily flooded from the 1st July to 4th July 1941. The seedlings and huts of agriculturists living on the banks of these rivers were washed away and the transplantation work was retarded. Land revenue to the extent of Rs. 6,559 was suspended and Rs. 3,547 were remitted. Relief works were opened and sufferers were provided employment opportunities. Cheap grain shops were opened and *tagai* loans were granted to cultivators."

1948 : "The river Paroli and the rivulets of Vasa and Kasangaon were flooded in June 1948. The water rose upto twenty feet and the villages of Sanjan, Gurgaon, Bhata-Karambali, Tembhi, Karjaon, Vara, Ghimaniya, Dhamangaon, Gangangaon and Kainad were affected. Huts on the banks were swept away and reclamation bunds were washed away. Three persons lost their lives and some cattle were drowned. The total loss was estimated at Rs. 42,000. Relief to the extent of Rs. 1,181 was granted by Government."

AGRICULTURAL RESEARCH AND EDUCATION

Agricultural research and education are of prime importance in an agrarian economy and have become a *sine qua non* in the present

context of development and planning. Agricultural research has a special significance in as much as the improved methods of cultivation are the direct outcome of research work conducted on the experimental farms and in the research laboratories. The research work regarding genetic improvement of crops leading to higher yields per acre and evolving good quality, disease-resistant strains, sound agronomic practices and practical and economic remedial measures for control of pests and diseases was carried out at different research stations established in the State as also in Thane district. The work is being undertaken with a view to maximising production for meeting the needs of the growing population and also to help various processing industries. The research work is conducted under the technical guidance and supervision of the State-level specialists who guide the work on their respective subjects of specialisation. The Deputy Director of Agriculture (Research and Education), Bombay Division, co-ordinates the research work in Thane district.

There are two research stations at Palghar for the studies in breeding and selection of rice and another for grass breeding where the performance of different edible grass strains is observed. Besides, there are agricultural demonstration centres established in the district which serve useful purpose in demonstrating the improved agricultural practices advocated by the Agriculture Department on the cultivators fields. A pioneering work in agrarian research and education has, however, been done by the Agricultural Institute at Kosbad, which is now a research and teaching centre of the Konkan Agricultural University. The information about this institute is given below :—

Agricultural Institute, Kosbad : Agricultural education forms one of the important activities of the Agriculture department. The object of imparting agricultural education is to train young men in the modern science of agriculture and to create a cadre of good research and extension workers at all levels. It is imparted through agricultural colleges, agricultural institutes, agricultural schools, *gram-sevak* training centres, etc., in the State.

This is a pioneering institute which has done valuable research work in agrarian genetics, plant pathology, varietal studies and rural extension services. It was started in 1949 by the Gokhale Education Society, with a view to spreading agricultural education in rural areas particularly the tribal blocks, and also to find solutions to the agricultural problems of small holders. A further objective was to carry the results of agricultural research to the individual cultivators. This institute has made steady progress through the years and has extended its activities in the spheres mentioned above.

The local cultivators were invited to watch and learn the new methods and were encouraged to adopt them on their own lands.

In the nature of things the institute laid emphasis on paddy research from the beginning and initiated a series of varietal studies in paddy cultivation. The authorities of this institute adopted the Japanese method of paddy cultivation for the first time in India, and established the efficacy and suitability of this variety to the Indian conditions. It was after this that the Japanese method was propagated in other parts of the country by the Government of India. The institute has extensive farms under its command where research scholars of national reputation are engaged in agrarian research. Their work is being conducted under the auspices of the Indian Council of Agricultural Research. The scholars have taken up various schemes of research whereby they have contributed valuable knowledge in the field of their specialization. Some of the research schemes are undertaken in collaboration with foreign governments and institutes which provide financial help. The results of the research studies and feasibility experiments are demonstrated to progressive farmers who are persuaded to adopt the knowledge to their best advantage. In many cases the farmers in the surrounding areas are invited to participate in the various experiments so that they would feel encouraged to practise the methods in their own fields. The response of the farmers to this sort of participation is quite encouraging, though not most satisfactory.

After introducing the Japanese method the institute tackled incidental problems in rice cultivation, such as prevention of lodging, advance transplanting, shortening the ripening period, etc. It also searched further for better quality as well as high-yielding varieties of short duration.

The institute introduced an American variety of rice, viz., 'Blue Belle' which was tried with excellent results. This variety can be harvested in ninety days, and its seed is distributed extensively. It is in demand all over the country.

The institute has now added plant genetics to its research work, and is working on evolving new varieties of rice which may better suit local requirements of a heavy-rain tract. Research in possibilities of growing wheat and cotton in this area was also embarked upon. The results of the study of the institute were quite encouraging. *Laxmi* cotton, a variety of South India, was tried as a supplementary crop after harvesting rice. It was found that the humid climate helped the growth considerably and about three pickings were available, and the yield was quite good. Encouraged by these results, the institute is trying to evolve a long staple early variety. This research scheme is now sponsored by the Indian Council of Agricultural Research, New Delhi.

Besides cotton, the institute has also taken up research in introducing the Mexican Dwarf variety of wheat in this district. Research is also being conducted for improving the various classes of grasses and legumes with a view to increasing their nutritive contents. This will encourage dairy industry and provide a subsidiary occupation to the villagers. The institute is also conducting research in the physiological and agronomic aspects of *chikku* fruits.

The institute is now recognized as a centre for post-graduate studies in agronomy, horticulture, as also other branches in agricultural science and botany, by the Konkan Agricultural University, Dapoli. The institute has many working units through which it fulfils its educational programmes and extension services. They are described below :

Agricultural School : The Agricultural School at Kosbad Hill is one of the working units of the Agricultural Institute. It was started in 1949 to equip the sons of agriculturists of Thane district with a knowledge of scientific methods in agriculture. They are trained for two years in various branches of agriculture and animal husbandry on the Institute's farm, which has about 150 acres of land, of which about fifty acres have irrigation facilities. Besides food-crops, horticultural crops such as mango, *chikku*, coconut, banana, *papaya* and vegetables are raised. A nursery is also attached for training in plant propagation. A dairy and a fairly large poultry farm are also attached for training of the students. The boys trained are eligible for the posts of village-level workers and agricultural assistants. The school trained about 800 youths upto 1970-71 equipped with modern agricultural techniques. In 1968-69, 56 students attended the school of whom 55 successfully completed their training.

Tribal Youth Training Centre : The Tribal Youth Training Centre is attached to the Agricultural Institute and was established in 1959, with a view to impart training in improvement in the process of cultivation, manuring, seed or implements to the tribal population whose main occupation is agriculture. A short four-month training course and a longer one for a year are conducted. The courses include practical demonstrations of various crops suitable particularly to tribal region. Other branches such as agriculture, animal husbandry and dairy science also form an important part of the courses. The trainees are taken to the fields of the villagers for "situation studies" where they help the tribal cultivators in their various operations and learn to tackle and cope up with real situations. The centre trained about 1,500 tribal youths in the modern scientific techniques, upto 1970-71. On completion of the training, the youths practise and follow the new techniques of cultivation which they learn at the centre on

their own farms. They also keep contact with the Centre for guidance from time to time.

Gramsevak Training Centre : The Gramsevak Training Centre was established in 1964 by the Agricultural Institute with a view to training the *Gramsevaks* in the latest agricultural techniques and methods of their extension. The *Gramsevak* or the village-level worker in the present set-up of the community development, forms the basic link between cultivators and research stations. One hundred and forty *Gramsevaks* from four districts of the State are trained at a time. There are two courses, a short one of six months, and a longer one of one year. During the year 1968-69, a two months refresher course, six months training course and one year upgraded training course were conducted by this centre. As many as 7,358 students completed the training courses and 45 completed the upgraded training course in 1968-69.

Besides the above, the Agricultural Institute has started a Panchayat Raj Training Centre, a Primary and Secondary School for Tribal Children, and Extension Service Unit, a Food Grains and Applied Nutrition Programme and Youth Clubs which have an important bearing on improving the rural extension services.

TABLES

TABLE NO. 1—NUMBER OF CULTIVATORS AND AGRICULTURAL LABOURERS IN THANE DISTRICT, 1961 AND 1971

Particulars	Cultivators			
	Male		Female	
	1961	1971	1961	1971
District Total	1,97,725	1,91,733	1,85,431	87,251
Rural	1,94,065	1,87,751	1,82,383	86,295
Urban	3,660	3,982	3,048	956

Particulars	Agricultural Labourers			
	Male		Female	
	1961	1971	1961	1971
District Total	61,336	1,04,192	56,941	75,592
Rural	59,608	1,00,382	55,575	73,349
Urban	1,728	3,810	1,366	2,243

TABLE No. 2—MAJOR AND MINOR FOREST PRODUCTS IN THANE DISTRICT, 1974-75

Timber	..	..	Q (in thousand cubic metres)	..	..	44,636
Fuel	..	..	V (in Rupees)	..	..	1,68,06,790
	..	..	Q (in thousand cubic metres)	..	..	1,84,755
	..	..	V (in Rupees)	..	..	48,66,209
Sandal wood	..	..	Q (in thousand cubic metres)	..	..	....
	..	..	V (in Rupees)	..	..	....
Minor forest products—						
Bamboo	..	..	..	..	..	5,202
Grass and grazing	..	..	..	..	..	4,30,561
Other products *	..	..	..	..	..	5,16,313
Total value in Rs.						2,26,25,075

Q = Quantity. V = Value.

*Other products include *apta*, *tembhorni* leaves, *hirda*, *gum*, *chilarbark*, *darbi*, *bel* leaves, *toddy*, *darwen* leaves, *shikakai*, *mohuti* fruits etc.

TABLE NO. 3—STATISTICS OF LAND UTILISATION IN

Taluka	Year	Total geographical area	Forests	Barren and unculturable land	Land put to non- agricultural uses	Culturable waste
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Thane ..	1961-62	34,281	5,160	5,210	378	397
	1967-68	34,197	5,787	3,966	728	10,320
	1973-74	34,204	5,890	4,364	9,772	1,802
(2) Kalyan ..	1961-62	64,832	15,768	10,688	125	1,800
	1967-68	64,833	15,783	11,736	121	....
	1973-74	31,211	7,046	2,889	6,072	248
(3) Murbad ..	1961-62	90,743	23,143	5,906	10	1,036
	1967-68	90,734	23,068	4,937	....	18,090
	1973-74	90,745	23,066	7,311	384	8,248
(4) Bhivandi ..	1961-62	69,036	24,721	2,208	79	125
	1967-68	69,042	24,727	8,175	607	....
	1973-74	69,038	24,722	8,213	11,504	2,257
(5) Bassein ..	1961-62	53,938	22,705	2,627	1,046	2,826
	1967-68	53,947	22,704	2,631	1,052	3,035
	1973-74	53,938	22,698	2,949	4,505	4,649
(6) Wada ..	1961-62	78,770	37,786	7,667	150	2,502
	1967-68	78,775	38,366	7,811	....	15,176
	1973-74	78,772	37,799	7,712	276	12,456
(7) Shahapur ..	1961-62	1,57,245	78,276	28,582	20	2,753
	1967-68	1,57,226	78,269	16,552	41	27,074
	1973-74	1,57,249	78,277	16,691	2,522	8,671
(8) Dahanu ..	1961-62	97,787	46,515	1,087	66	1,891
	1967-68	97,775	46,419	3,399	81	1,052
	1973-74	97,789	45,770	6,707	2,379	1,636
(9) Palghar ..	1961-62	1,05,296	46,106	10,679	85	1,204
	1967-68	1,06,800	46,055	10,805	81	1,416
	1973-74	1,06,802	46,068	9,225	2,606	1,733
(10) Jawhar ..	1961-62	85,601	34,861	2,267	15	10,943
	1967-68	85,594	37,880	1,983	....	15,864
	1973-74	85,603	37,908	1,958	248	6,029
(11) Mokhada ..	1961-62	68,029	24,890	8,856	103	569
	1967-68	68,070	24,930	9,187	....	9,349
	1973-74	68,050	24,602	9,085	3,104	1,081
(12) Talasari ..	1961-62	26,712	7,917	653	413	....
	1967-68	26,710	7,932	2,590	....	688
	1973-74	26,712	7,917	1,759	2,029	1,016
(13) Ulhasnagar ..	1973-74	33,622	10,770	5,123	6,297	4,205
(14) District Total ..	1961-62	9,32,270	3,67,848	86,430	2,495	26,046
	1967-68	9,33,703	3,71,920	83,772	2,711	1,02,064
	1973-74	9,33,735	3,72,433	83,936	51,700	54,031

ANE DISTRICT 1961-62, 1967-68 AND 1973-74

(In hectares)

manent stures d other ing land	Land under miscellaneous tree crops and groves not included in area sown	Current fallows	Other fallows	Total uncultivated area	Net area sown	Area sown more than once	Cropped area
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
362	324	320	9,711	21,862	12,419	159	12,578
....	365	890	22,056	12,141	81	12,222
4,527	2,161	9	45	38,570	5,734	225	5,959
3,984	46	7,846	40,257	24,767	454	25,221
....	486	648	28,774	36,059	486	36,545
7,930	44	311	24,540	6,671	117	6,788
5,785	14,197	258	60,335	30,396	258	30,654
2,627	324	1,659	60,705	30,029	405	30,434
9,887	4,801	538	74,235	16,520	363	16,883
5,637	1,202	9,101	43,073	25,618	290	15,908
7,932	648	1,295	43,384	25,658	364	26,022
2,199	13	9	48,917	20,121	420	20,541
1,902	2,193	3,998	37,298	16,640	1,583	18,223
1,816	1,052	2,752	38,042	15,905	1,022	16,917
1,768	627	497	40,693	13,245	1,655	14,900
....	7,299	9,985	65,389	12,233	2,208	14,441
....	910	3,521	65,784	12,991	1,093	14,084
....	4,263	689	2,176	65,371	13,401	109	13,510
397	2,844	12,459	1,26,331	32,137	375	32,512
....	1,497	4,897	1,28,330	28,896	121	29,011
1,117	7	479	1,38,763	18,545	172	18,717
223	2,004	1,570	60,356	37,025	524	32,549
366	1,744	890	60,551	36,828	728	37,556
473	2,670	1,096	80,731	17,058	328	17,386
385	886	648	645	65,628	39,657	1,465	41,122
354	1,822	1,578	68,111	38,689	1,619	40,309
085	22	698	68,439	38,363	346	38,709
...	287	11,747	60,120	25,480	36	25,540
...	1,174	850	57,751	27,843	121	27,964
586	8,142	4,053	59,216	23,579	98	23,677
...	1,706	15,130	51,259	16,840	439	17,279
588	1,131	5,342	50,627	17,443	749	18,212
506	9,925	2,583	51,986	16,974	5	16,979
19	1,177	47	11,126	15,585	345	15,930
..	181	202	11,493	15,217	81	15,298
..	141	6,972	19,834	7,058	90	7,148
80	1	5,846	5,846	385	6,131
94	1,210	33,923	82,487	6,43,033	2,88,797	8,136	2,96,933
93	11,234	24,524	6,36,008	2,97,699	6,860	3,04,599
38	6,424	27,090	19,268	7,30,620	2,03,115	4,315	2,07,428

TABLE NO. 5—TALUKA-WISE STATISTICS OF CO-OPERATIVE FARMING SOCIETIES IN THANE DISTRICT DURING 1967-68

Particulars	Unit of measurement	Thane	Kalyan	Shahapur	Bhiwandi	Dahanu	Murbad	Palghar	Wada	Vasai	Mokhada	Jawhar	Talasari	District Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Joint farming societies	No.	2	....	....	....	....	1	....	4	....	....	....	....	7
Collective farming societies	No.	....	3	....	3	2	1	6	6	1	....	....	....	22
Membership	No.	105	148	....	90	46	27	155	320	34	....	....	....	925
Share capital	.. (in 000' Rs.)	11	65	....	7	6	1	3	31	2	....	....	....	126
Working capital	.. (in 000' Rs.)	31	102	....	37	8	2	22	13	5	....	....	....	220
Area under command	.. (in hectares)	37.25	134.61	....	86.30	47.30	75.38	657.85	225.81	40.50	....	....	....	1,305
Profit societies	No.	1	1	....	1	1	2	3	4	1	....	....	....	14
Amount	.. (in 000' Rs.)	7	5	....	1	1	3	12	8	1	....	....	....	38
Loss societies	No.	1	2	....	2	1	....	3	6	....	....	....	....	15
Amount	.. (in 000' Rs.)	2	11	....	3	1	....	17	18	....	....	....	....	52

Source.—District Deputy Registrar, Thane District, Thane.

TABLE NO. 4—THANE SALT LAND, 1881

Sub-Divisions				Reclaimed (Acres)	Unreclaimed (Acres)	Total (Acres)
Dahanu	..	..	..	15	9,881	9,896
Mahim	..	..	..	972	20,244	21,216
Bassein	..	..	..	3,52	10,965	14,117
Bhiwandi	..	..	..	430	995	1,425
Salsette	..	..	..	9,119	19,869	28,988
Kalyan	..	..	..	....	611	611
Panvel	..	..	..	2,715	13,770	16,485
				16,403	76,335	92,738

TABLE NO. 6—TALUKA-WISE AREA UNDER CEREALS IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1973-74

(In hectares)						
Taluka	Year	Rice	Ragi	Vari	Other Cereals	Total Cereals
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Thane	.. 1961-62	8,089	....	....	17	8,106
	1967-68	7,487	41	....	....	7,528
	1973-74	5,625	10	4	....	5,639
Kalyan	.. 1961-62	12,683	480	....	177	13,340
	1967-68	12,222	445	112	....	12,779
	1973-74	6,330	90	170	....	6,590
Murbad	.. 1961-62	13,133	3,542	....	923	17,598
	1967-68	13,719	3,602	971	....	18,292
	1973-74	12,234	769	245	....	13,248
Bhivandi	.. 1961-62	18,059	....	721	154	18,934
	1967-68	17,928	728	202	....	18,858
	1973-74	18,068	713	196	....	18,977
Bassein	.. 1961-62	13,157	280	1	79	13,527
	1967-68	13,072	162	41	....	13,275
	1973-74	12,858	....	....	2	12,860
Wada	.. 1961-62	11,680	556	138	15	12,389
	1967-68	11,817	728	324	....	12,869
	1973-74	12,223	634	258	17	13,122

TABLE No. 6—*contd.*

(1)		(2)	(3)	(4)	(5)	(6)	(7)
Shahapur	..	1961-62	15,331	3,880	....	1,284	20,495
		1967-68	13,760	3,238	890	....	17,888
		1973-74	14,082	2,762	723	14	17,581
Dahanu	..	1961-62	17,672	1,276	....	856	19,804
		1967-68	17,159	1,012	607	324	19,102
		1973-74	15,081	....	....	218	15,299
Palghar	..	1961-62	22,388	800	23	289	23,500
		1967-68	21,409	688	243	....	22,340
		1973-74	19,735	77	20	15	19,847
Jawhar	..	1961-62	8,592	6,727	....	6,004	21,323
		1967-68	9,065	6,799	4,978	162	21,004
		1973-74	7,954	6,800	4,731	119	19,604
Mokhada	..	1961-62	2,450	5,899	....	4,216	12,575
		1967-68	2,388	6,232	4,856	81	13,557
		1973-74	2,190	6,061	4,688	26	12,965
Talasari	..	1961-62	5,683	400	120	263	6,466
		1967-68	5,706	486	243	....	6,435
		1973-74	5,646	436	212	113	6,407
Ulhasnagar	..	1973-74	5,492	161	93	....	5,746
District Total	..	1961-62	1,48,927	23,840	1,003	14,287	1,88,057
		1967-68	1,45,732	24,161	13,467	567	1,83,927
		1973-74	1,37,508	18,513	11,340	524	1,67,885

TABLE No. 7—OUT-TURN OF CEREALS IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1973-74

(In tonnes)*

Cereal	Year		
	1961-62	1967-68	1973-74*
Rice	2,38,162	2,51,472	2,654
Ragi	14,800	28,957	242
Other cereals	8,900	7,620	88
Total cereals	2,66,103	2,88,253	2,987

*Out-turn figures for 1973-74 are in metric tonnes.

TABLE No. 8—TALUKA-WISE AREA UNDER PULSES IN THANE DISTRICT DURING 1961-62, 1967-68 AND 1972-73

(In hectares)										
Taluka	Year	Gram	Green gram (Mug)	Tur	Black gram (Udid)	Horse gram (Kulith)	Val	Chavali	Other pulses	Total pulses
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Thane	..	1961-62	21	2	8	4	22	7	44	108
	..	1967-68	41	...	...	11	22	8	41	123
	..	1972-73	26	...	2	...	48	4	...	80
Kalyan	..	1961-62	122	6	64	12	113	54	279	650
	..	1967-68	121	6	41	101	106	48	112	535
	..	1972-73	39	...	12	19	19	8	...	97
Murbad	..	1961-62	181	...	252	...	78	316	1,240	2,181
	..	1967-68	202	5	243	745	128	316	1,295	3,051
	..	1972-73	210	5	262	717	112	320	...	1,730
Bhivandi	..	1961-62	154	...	8	1	106	71	407	749
	..	1967-68	243	...	...	238	147	...	405	1,035
	..	1972-73	242	...	88	235	146	78	...	791
Vasai	..	1961-62	140	...	75	...	219	93	473	1,000
	..	1967-68	121	...	40	153	181	107	445	1,047
	..	1972-73	110	...	75	111	142	64	...	502
Wada	..	1961-62	227	...	70	...	94	63	285	729
	..	1967-68	243	...	81	171	476	53	688	1,617
	..	1972-73	79	...	50	119	30	17	...	300

TABLE No. 8—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Shahapur	..	1961-62 1967-68 1972-73	168 162 148	.... .... ....	84 81 83	.... 414 394	.... .... 22	1 4 7	91 63 44	625 486	969 1,210 698
Dahanu	..	1961-62 1967-68 1972-73	49 40 22	8 8	394 324 285	88 554 269	.... .... 2	176 182 30	162 121 124	863 850	1,740 2,079 732
Palghar	..	1961-62 1967-68 1972-73	104 121 36	6 12 4	147 202 88	.... 227 236	.... .... ....	128 274 99	58 44 42	497 243	940 1,128 505
Jawhar	..	1961-62 1967-68 1972-73	35 40 85	.... .... ....	1,393 1,578 1,322	.... 1,888 1,521	351 125 117	.... 47 42	147 85 86	1,618 2,226	3,544 6,089 3,173
Mokhada	..	1961-62 1967-68 1972-73	.. .. 20	.... .... ....	951 931 899	.... 1,365 1,254	1,159 236 144	.... .... ....	68 72 18	1,581 1,700	3,759 4,304 2,335
Talasari	..	1961-62 1967-68 1972-73	23 40 38	5 24 28	265 243 239	1 205 224	.... .... ....	63 39 38	90 28 35	395 81	842 660 602
Ulhasnagar	..	1972-73	46	....	38	42	....	45	31	....	202
District Total	..	1961-62 1967-68 1972-73	1,224 1,374 1,101	27 56 37	3,711 3,764 3,443	.... 6,172 5,141	1,623 485 396	998 1,603 758	1,220 930 871	8,307 8,577	17,110 22,961 11,747

TABLE NO. 9—OUT-TURN OF PULSES IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1973-74

Pulses	Year		
	1961-62	1967-68	1973-74*
Gram	305	508	5
<i>Tur</i>	1,118	1,016	12
Other pulses ..	2,235	2,337	47
Total pulses ..	3,658	3,861	64

*Figures for 1973-74 are in metric tonnes.

TABLE NO. 10—OUT-TURN OF CONDIMENTS AND SPICES IN
THANE DISTRICT, 1961-62, 1967-68 AND 1972-73

Condiments and spices	Year		
	1961-62	1967-68	1972-73
Betelnut	2	317	N.A.
Chillis	825	943	N.A.
Other condiments ..	54	181	N.A.
Total condiments and spices ..	881	1,441	N.A.

N.A. = Not available.

TABLE NO. 11—OUT-TURN OF OILSEEDS IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1972-73

Oilseeds	(In tonnes)*		
	Year		
	1961-62	1967-68	1972-73
Groundnut .. ..	....	102	1
Sesamum	695	596	1
Coconut	130	157	N.A.
Niger seed	1,756	2,833	N.A.

*Figures for 1972-73 are in metric tonnes. N.A. = Not available.

TABLE NO. 12—TALUKA-WISE AREA UNDER CONDIMENTS AND SPICES IN THANE DISTRICT DURING 1961-62, 1967-68 AND 1972-73

(In hectares)					
Taluka	Year	Betelnut	Chillis	Other condiments and spices	Total condiments and spices
(1)	(2)	(3)	(4)	(5)	(6)
Thane	.. 1961-62	....	5	....	5
	1967-68	....	4	11	15
	1972-73	....	18	36	54
Kalyan ..	.. 1961-62	....	62	8	70
	1967-68	....	32	1	33
	1972-73	....	7	....	7
Murbad	.. 1961-62	....	264	13	287
	1967-68	....	322	45	367
	1972-73	....	268	24	292
Bhiwandi	.. 1961-62	....	164	6	170
	1967-68	....	152	....	152
	1972-73	....	154	9	163
Vasai ..	.. 1961-62	2	45	13	60
	1967-68	262	24	24	310
	1972-73	58	22	40	120
Wada ..	.. 1961-62	....	....	....	....
	1967-68	....	24	1	25
	1972-73	....	17	2	19
Shahapur	.. 1961-62	....	62	....	62
	1967-68	....	68	1	69
	1972-73	....	60	....	60
Dahanu ..	.. 1961-62	....	99	....	99
	1967-68	....	132	8	140
	1972-73	....	42	4	46
Palghar ..	.. 1961-62	....	104	13	117
	1967-68	55	155	89	299
	1972-73	4	72	41	117
Jawhar ..	.. 1961-62	....	17	1	18
	1967-68	....	9	....	9
	1972-73	....	27	....	27
Mokhada	.. 1961-62	....	4	....	4
	1967-68	....	20	....	20
	1972-73	....	15	....	15
Talasari ..	.. 1961-62	....	....	....	....
	1967-68	....	....	....	....
	1972-73	7	....	....	7
Ulhasnagar ..	.. 1972-73	....	32	2	34
District Total	.. 1961-62	2	825	55	882
	1967-68	317	943	180	1,440
	1972-73	69	734	158	961

TABLE No. 13 —TALUKA-WISE AREA UNDER OILSEEDS IN THANE DISTRICT DURING 1961-62, 1967-68 AND 1972-73

(In hectares)

Taluka	Year	Ground-nut	Coco-nut	Sesamum	Niger-seed	Other oil-seeds	Total oil-seeds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Thane	1961-62	....	....	5	....	5	10
	1967-68	....	22	3	1	....	26
	1972-73	....	22	2	....	8	32
Kalyan	1961-62	....	....	64	58	122	244
	1967-68	....	....	61	58	41	160
	1972-73	1	....	14	....	7	22
Murbad	1961-62	....	....	186	388	574	1,148
	1967-68	41	....	195	405	202	843
	1972-73	36	....	192	....	356	584
Bhiwandi	1961-62	....	....	82	91	172	345
	1967-68	....	....	84	....	81	165
	1972-73	....	....	83	....	88	171
Vasai	1961-62	....	32	33	....	66	131
	1967-68	....	27	21	22	41	111
	1972-73	....	38	18	....	26	82
Wada	1961-62	....	....	41	28	70	139
	1967-68	....	....	36	48	40	124
	1972-73	....	....	18	....	34	52
Shahapur	1961-62	....	....	44	....	270	314
	1967-68	....	....	42	126	41	209
	1972-73	....	....	39	....	116	157
Dahanu	1961-62	....	46	166	36	252	500
	1967-68	....	54	61	....	683	798
	1972-73	14	61	24	....	119	217
Palghar	1961-62	3	52	14	24	91	184
	1967-68	....	53	12	21	....	86
	1972-73	2	54	8	....	29	93
Jawhar	1961-62	6	....	54	....	992	1,052
	1967-68	40	....	56	1,290	....	1,386
	1972-73	47	....	2	....	1,220	1,325
Mokhada	1961-62	38	....	6	1,130	1,137	2,311
	1967-68	....	....	24	1,130	....	1,154
	1972-73	62	....	2	....	1,155	1,219
Talasari	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	12	....	12
	1972-73	1	....	2	....	12	15
Ulhasnagar	1972-73	....	....	17	....	17	34
District Total	1961-62	47	130	695	1,755	3,551	6,378
	1967-68	81	156	595	2,113	1,129	4,074
	1972-73	163	175	477	....	3,186	4,001

TABLE NO. 14—TALUKA-WISE AREA UNDER FRUITS IN THANE DISTRICT IN 1961-62, 1967-68 AND 1972-73

(In hectares)							
Taluka	Year	Banana	Mangoes	Guava	Chiku	Other fruits	Total fruits
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Thane	1961-62	....	....	87	....	....	87
	1967-68	....	68	....	....	....	68
	1972-73	....	25	....	....	....	25
Kalyan	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	97	97
	1972-73	....	....	....	....	....	....
Murbad	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	....	....	....	....	18	18
Bhiwandi	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	....	....	....	....	....	....
Vasai	1961-62	892	34	....	....	2	928
	1967-68	667	30	....	....	4	701
	1972-73	728	60	....	....	1	789
Wada	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	....	....	....	....	....	....
Shahapur	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	....	....	....	....	....	....
Dahanu	1961-62	35	156	26	N.A.	....	217
	1967-68	39	53	83	32	42	249
	1972-73	88	83	49	578	39	837
Palghar	1961-62	238	51	8	....	26	323
	1967-68	255	36	16	21	5	333
	1972-73	511	49	2	47	4	613
Jawhar	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	1	....	....	....	1	2
Mokhada	1961-62	....	....	....	....	....	....
	1967-68	....	....	....	....	....	....
	1972-73	9	83	....	....	....	92
Talasari	1961-62	....	32	....	....	....	32
	1967-68	4	33	....	42	2	81
	1972-73	4	33	5	42	....	84
Ulhasnagar	1972-73	....	....	....	....	73	73
District Total	1961-62	1,165	273	121	....	29	1,588
	1967-68	965	220	101	95	148	1,529
	1972-73	1,341	333	56	667	136	2,533

TABLE No. 15—TALUKA-WISE AREA UNDER VEGETABLES IN THANE DISTRICT IN 1961-62, 1967-68 AND 1972-73

Taluka (1)	Year (2)	Sweet potato (3)	Onion (4)	Radish (5)	Cabbage (6)	Brinjal (7)	Tomato (8)	Fenugreek (9)	Bhendi (10)	Muskmelon (11)	(In hectares)	
											Other vegetables (12)	Total vegetables (13)
Thane	1961-62	....	12	1	....	....	....	....	2	....	30	45
	1967-68	....	31	....	....	....	....	....	....	30	....	61
	1972-73	28	24	....	....	2	4	....	....	....	72	130
Kalyan	1961-62	10	1	6	1	76	2	....	5	24	101	226
	1967-68	10	1	6	1	76	2	97	6	23	2	224
	1972-73	..	....	....	4	52	2	1	2	....	2	63
Murbad	1961-62	67	....	....	....	25	....	....	4	....	....	96
	1967-68	88	....	....	....	106	....	....	10	....	7	211
	1972-73	95	....	....	....	592	....	....	17	....	12	716
Bhivandi	1961-62	1	20	5	....	215	....	....	20	....	15	276
	1967-68	....	14	....	....	188	....	....	24	....	....	226
	1972-73	....	14	13	....	186	....	....	24	....	116	353
Vasaj	1961-62	18	185	....	22	235	36	4	23	....	2	525
	1967-68	8	233	16	32	125	31	....	24	4	108	581
	1972-73	4	92	27	24	60	27	3	....	....	167	394
Wada	1961-62	....	....	....	....	....	....	....	10	....	....	10
	1967-68	....	....	....	....	1	....	....	9	....	....	10
	1972-73	....	....	....	....	....	....	8	....	....	....	8

TABLE No. 15—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Shahapur	.. 1961-62	...	...	...	...	15	...	...	...	...	4	19
	1967-68	8	...	...	...	39	...	...	...	...	...	47
	1972-73	...	...	...	...	32	...	...	...	...	...	32
Dahanu	.. 1961-62	15	19	...	20	61	8	...	...	...	70	193
	1967-68	16	60	29	17	72	10	...	...	4	99	307
	1972-73	7	143	16	14	56	9	...	...	...	63	308
Palghar	.. 1961-62	12	85	16	4	34	2	...	...	...	11	164
	1967-68	14	107	14	4	222	5	...	...	...	26	396
	1972-73	19	191	16	3	65	3	1	...	...	3	301
Jawhar	.. 1961-62	...	...	8	...	...	...	...	...	...	...	8
	1967-68	...	...	...	...	...	...	...	...	...	...	...
	1972-73	...	...	...	...	...	...	...	...	...	...	...
Mokhada	.. 1961-62	...	...	...	...	...	...	...	...	...	...	...
	1967-68	...	...	...	...	8	...	...	...	...	8	16
	1972-73	...	14	...	...	1	...	...	...	...	...	15
Talasari	.. 1961-62	...	...	...	...	...	2	...	...	...	111	113
	1967-68	...	5	...	...	10	8	...	...	...	10	33
	1972-73	...	6	1	...	6	8	...	2	...	10	33
Ulhasnagar	.. 1972-73	5	1	1	...	30	20	...	20	...	34	111
District Total	.. 1961-62	123	322	36	47	661	50	4	64	24	342	1,667
	1967-68	144	451	65	54	847	56	98	77	61	260	2,083
	1972-73	158	485	74	45	1,082	73	13	65	...	489	2,464

TABLE NO. 16—TALUKA-WISE AREA UNDER FIBRES IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1972-73

(In hectares)

Taluka	Year	Jute	Sann-hemp	Ambadi	Total Fibres
(1)	(2)	(3)	(4)	(5)	(6)
Thane ..	1961-62 ..	..	..	..	..
	1967-68 ..	12	..	6	18
	1972-73 ..	6	..	10	16
Kalyan ..	1961-62 ..	..	37	56	93
	1967-68 ..	..	..	56	56
	1972-73 ..	5	..	4	9
Murbad ..	1961-62 ..	..	111	177	288
	1967-68 ..	116	..	189	305
	1972-73 ..	115	..	186	301
Bhivandi ..	1961-62 ..	59	..	92	151
	1967-68 ..	33	..	54	87
	1972-73 ..	32	..	54	86
Vasai ..	1961-62 ..	8	..	16	24
	1967-68 ..	4	..	11	15
	1972-73 ..	3	..	4	7
Wada ..	1961-62 ..	..	..	28	28
	1967-68 ..	10	..	11	21
	1972-73 ..	5	..	4	9
Shahapur ..	1961-62 ..	..	11	29	40
	1967-68 ..	27	..	30	57
	1972-73 ..	25	..	27	52
Dahanu ..	1961-62 ..	..	..	45	45
	1967-68 ..	..	..	40	40
	1972-73 ..	1	..	21	22
Palghar ..	1961-62 ..	..	18	11	29
	1967-68 ..	11	..	10	21
	1972-73 ..	3	..	5	8
Jawhar ..	1961-62 ..	..	..	37	37
	1967-68 ..	..	..	45	45
	1972-73 ..	..	..	45	45
Mokhada ..	1961-62 ..	1	..	..	1
	1967-68 ..	8	..	30	38
	1972-73 ..	..	..	9	9
Talasari ..	1961-62 ..	..	..	..	..
	1967-68 ..	3	9	..	12
	1972-73 ..	..	..	..	..
Ulhasnagar ..	1972-73 ..	10	..	10	20
District Total	1961-62 ..	68	177	481	737
	1967-68 ..	223	9	481	713
	1972-73 ..	205	..	379	584

TABLE NO. 17—OUT-TURN OF FIBRES IN THANE DISTRICT
DURING 1961-62, 1967-68 AND 1972-73

(In tonnes)

Fibres	Year		
	1961-62	1967-68	1972-73
Jute	68	223	N.A.
Sann-hemp	177	9	N.A.
Ambadi	481	481	N.A.

N.A. = Not available.

TABLE NO. 18—TALUKA-WISE AREA UNDER SUGARCANE IN THANE
DISTRICT DURING 1961-62, 1967-68 AND 1973-74

(In hectares)

Taluka	Year	Area under sugarcane
(1) Vasai	1961-62	41
	1967-68	37
	1973-74	9
(2) Shahapur	1961-62	...
	1967-68	...
	1973-74	16
(3) Dahanu	1961-62	10
	1967-68	45
	1973-74	...
(4) Palghar	1961-62	59
	1967-68	48
	1973-74	9
(5) District Total	1961-62	120
	1967-68	130
	1973-74	34

TABLE NO. 19—OUT-TURN OF SUGARCANE IN THANE DISTRICT
DURING 1961-62, 1972-73 AND 1973-74

(In metric tonnes) *

Year	Outturn
1961-62	102
1972-73	7
1973-74	...

* Out-turn in metric tonnes in terms of gur.

TABLE No. 20—LIVE-STOCK POPULATION IN EACH TALUKA OF THANE DISTRICT AS PER 1972 LIVE-STOCK CENSUS

Taluka	Cattle				Buffaloes			
(1)	Males over three years (2)	Females over three years (3)	Young stock (4)	Total cattle (5)	Males over three years (6)	Females over three years (7)	Young stock (8)	Total buffaloes (9)
Thane	..	3,852	2,056	12,601	1,405	6,253	1,133	8,791
Vasai	..	9,664	5,059	21,480	2,549	7,260	1,470	11,279
Palghar	..	23,226	17,620	53,143	3,909	5,303	2,496	11,708
Dahanu	..	29,439	21,176	66,745	3,167	2,351	1,381	6,899
Talasari	..	9,818	8,774	24,651	1,302	620	383	2,305
Jawhar	..	23,715	17,596	57,262	2,106	1,921	1,461	5,488
Mokhada	..	14,219	12,843	38,408	506	821	513	1,840
Wada	..	15,367	13,018	38,724	5,338	4,069	3,332	12,139
Bhiwandi	..	18,595	9,564	36,123	5,736	9,227	4,291	19,254
Shahapur	..	28,658	29,053	80,501	3,221	9,045	4,222	16,488
Murbad	..	16,331	16,487	47,539	3,537	4,360	2,177	10,074
Kalyan	..	11,529	5,323	20,797	1,193	5,504	1,525	8,222
Ulhasnagar	..	8,294	5,821	28,223	688	7,095	2,287	10,070
Total	..	2,15,548	1,67,884	1,32,765	34,657	63,829	26,671	1,25,157

TABLE No 20—*contd.*

Taluka (1)	Total bovine (10)	Sheep (11)	Goats (12)	Other live-stock (13)	Total live-stock (14)	Total poultry (15)
Thane	..	208	5,271	1,436	28,307	96,912
Vasai	..	44	7,457	3,420	43,680	75,711
Palghar	..	25	12,970	306	78,152	94,727
Dahanu	..	44	19,711	739	94,138	1,00,491
Talasari	..	165	7,852	17	34,990	42,166
Jawhar	19,401	52	82,203	65,150
Mokhada	13,365	18	53,621	33,025
Wada	..	109	10,206	291	62,069	54,033
Bhiwandi	..	89	13,271	814	69,551	84,909
Shahapur	..	52	14,828	155	1,12,024	58,238
Murbad	..	34	8,916	24	66,587	50,280
Kalyan	..	362	3,159	200	32,740	47,175
Ulhasnagar	..	74	3,476	3,578	35,421	33,861
Total	..	1,206	1,39,883	11,050	7,93,493	8,36,858

TABLE No. 21—SOURCES OF WATER-SUPPLY AND AREA IRRIGATED BY DIFFERENT SOURCES IN EACH TALUKA OF THANE DISTRICT IN 1961-62, 1967-68 AND 1973-74

(Area in hectares)

Taluka	Year	Total number of wells	Total number of wells used for not in use irrigation purpose	Number of wells	Area irrigated by sources			Private canals	Other sources	Total net area irrigated	Total gross area irrigated
					Government canals	Wells	Tanks				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Thane	..	40	..	40	..	170	..	..	..	170	170
	1961-62	39	39	..	..	81	..	..	..	81	81
	1967-68	573	..	39	..	..	..	..	..	..	..
Kalyan	..	48	39	9	..	15	..	..	286	301	301
	1961-62	63	58	5	..	..	..	..	..	..	..
	1967-68	42	42	..	..	..	..	..	..	..	..
Murbad	* 1973-74	25	..	25	..	..	..	..	..	..	..
	1961-62	..	..	..	..	..	..	..	..	..	..
	1967-68	749	..	..	..	..	..	..	..	..	..
Bhivandi	..	46	..	46	..	..	..	..	..	..	..
	1961-62	..	..	..	..	..	..	..	..	..	..
	1967-68	..	..	..	..	..	..	..	..	..	..
Vasai	1973-74	..	..	..	..	..	..	..	..	..	..
	1961-62	4,689	4,558	131	..	1,874	..	..	..	1,874	1,874
	1967-68	4,124	3,995	129	..	1,375	..	..	..	1,375	1,375
	1973-74	5,955	3,999	132	..	1,179	..	..	..	1,179	1,179

TABLE No. 21—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Wada	..	1961-62 1967-68	8	..	8	..	..	..	..	..	..
Shahapur	..	1973-74 1961-62 1967-68	.. 72 12	.. 72 12	.. .. ..	.. 29 ..	..	..	..	29	29
Dahanu	..	1973-74 1961-62 1967-68	846 574 572	.. 15 10	.. .. ..	738 1,008 566	..	..	..	738 1,008 566	738 1,008 566
Palghar	..	1973-74 1961-62 1967-68	2,414 996 1,065	1,205 .. 63	.. .. ..	1,006 790 890	..	..	..	1,006 790 890	1,006 790 890
Jawhar	..	1973-74 1961-62 1967-68	2,255	933	132	616 .. ..	..	..	..	616	616
Mokhada	..	1961-62 1967-68	.. 563	.. 23	....	....	..	..	..	..	..
Talasari	..	1973-74 1961-62 1967-68	.. 73 90	.. 69 80	10 4 10	.. 235 82	..	..	..	235 82	235 82
District Total	..	1973-74 1961-62 1967-68	180 6,571 5,965	80 6,230 5,667	.. 341 298	142 4,121 2,994	..	286	..	142 4,407 2,994	142 4,988 2,994
		1973-74	13,587	6,478	328	3,681	..	..	..	3,681	3,681

* Figures for newly formed Ulhasnagar taluka are included in Kalyan Taluka.

TABLE NO. 22—STATISTICS OF WAGES FROM 1894 TO 1921
IN THANE DISTRICT

(In rupees)

Year	Carpenter	Blacksmith	Able bodied agricultural labourer	Sycc or horse-keeper	Mason
(1)	(2)	(3)	(4)	(5)	(6)
1894 ..	19.30	19.30	07.11	07.12	19.30
1897 ..	00.22	00.30	00.07	00.10	00.22
1900 ..	00.22	00.22	00.07	00.10	00.18
1905 ..	00.22	00.22	00.07	00.12	00.18
1910 ..	00.22	00.22	00.09	00.12	00.22
1915 ..	00.31	00.31	11.10	00.12	00.31
1920 ..	00.37	00.37	00.15	00.15	00.37
1921 ..	00.90	00.90	00.23	00.30	00.90

TABLE NO. 23—FAMINES, 1899-1902

Particulars	1899-00	1900-01	1901-02
(1)	(2)	(3)	(4)
1. Total daily average number of persons relieved during the year.	41,03	90	..
2. Mortality—			
(a) Normal Total ..	22,591	22,591	22,591
(b) Deaths occurred during the year.	55,568	29,798	19,904
(c) Number of deaths over normal.	32,977	7,207	..
3. Relief works pertaining to—			
(a) Canals, channels or drainage	..	..	..
(b) Roads ..	5	..	..
(c) Village Tanks ..	1	..	..
4. Poor houses ..	2	..	..
5. Loss of cattle ..	14,385	..	..
6. Expenditure—			
	(Rs.)	(Rs.)	(Rs.)
(a) By Government ..	1,36,596	5,731	6,744
(b) From local municipal and charitable funds.	51,601	..	..
7. Advances and remissions granted—			
(a) <i>Takavi</i> advances ..	1,06,920	..	..
(b) Remissions of land revenue	14,460	..	..
(c) Remissions of <i>takavi</i> advances	..	..	..



सत्यमेव जयते

CHAPTER 5 — INDUSTRIES

INTRODUCTION

THANE IS THE MOST INDUSTRIALISED DISTRICT IN THE STATE WITH THE exception of Bombay. The Thane-Belapur-Kalyan industrial belt is the centre of highly sophisticated modern industries, some of the factories being organised with foreign collaboration. The industrial growth in the district, however, is concentrated in this industrial belt. The concentration and localization of industries in the industrial belt referred above is attributable to the following factors :—(1) The economies, known as internal economies and external economies, in the economic jargon, (2) vicinity of the industrial metropolis of Bombay and the advantages arising out of it, (3) facilities of transport and communications, (4) availability of capital from organised sector, (5) entrepreneurs from Bombay city, (6) nearness of the Bombay harbour and airport, (7) nearness of a ready market for consumer as well as industrial goods in Bombay and a number of economic over-heads. The interior areas of the district are not industrialised in the true sense. There are just a few processing industries which sustain for a few months in a year. There is however some scope for the canning and preservation of fruits as there is a considerable production of banana, *chickoo*, mango, etc. in Vasai, Palghar, Dahanu and Shahapur talukas.

As regards forest industries, there is a scope to establish industrial units. Small units for manufacture of wooden requisites of buildings, furniture and wooden material for agricultural equipment, textile and electrical accessories can profitably be established at various places like Dahanu, Ashagadh, Wada, Murbad, Shahapur and Kasara. A unit for manufacturing boards, moulded articles like ink-stand, ash-tray, commode seat, etc., from saw-dust and other wood-waste could also be profitably established. Good quality charcoal has an assured demand from rayon industry for manufacture of carbon disulphide. Carbonisation of wood on scientific basis will therefore provide employment to some people. There is also need for setting up wood seasoning-cum-preserving units. In the district where paddy is grown on a large scale and where coarse grass varieties such as *bodani*, *kasai*, *bhatani* and *bhella* grow in abundance especially in the Tansa and Vaitarna lake catchment areas, units for manufacturing paper, paper-board, pulp

and allied products from paddy straws and grass could be advantageously established. Besides, *apta* leaves for *bidi* industry, mahowa flowers and fruits, palm leaves, *khair* for *kath*, *palas* for propagation of lac and bamboo are available in Thane forests. These forest-products can be used as raw materials for small industries. The other minor forest-produce available include *hirda*, *shikekai*, honey, gum, and *chilhar* bark which is used for strengthening the cotton twines.

The district is not rich in mineral deposits. Very small and seemingly unimportant patches of ore sand are reported to be occurring near Vasai. The deposits of ore with high percentage of iron oxide content ranging from 30 to 60 per cent are reported to occur on Tungar hills about three miles from Vasai Road railway station. The deposits are estimated at 0.6 million tons. The deposits of Kankar or intertrappean limestone either of concurring nature or consisting of shell aggregates are reported in the area between Vasai and Dahanu. The occurrences between Vasai and Palghar are being exploited intermittently for lime burning and those to the north of Palghar are being continuously worked on an appreciable scale. The estimated reserves of about 65,000 tons of inferior reddish or yellowish lateric clay occur near Gokhivare village in Vasai taluka. The clay is suitable for bricks, drainage pipes, tiles and cheap red glazed wares.

The coastal line of about 110 kilometres provides a substantial scope for both marine fishery and salt manufacturing. The important salt-producing centres in the district are at Rai-Murdhe, Juchandra, Bhayandar, Belapur and Vasai while the fishing centres are at Dahanu, Popharan-Uchhali, Nawapur, Murabe, Satpati, Datiware, Arnala, Vasai and Uttan. The marine industries provide employment to a large number of people in the district.

The district can be divided into three distinct parts. The first is the area under direct influence of Bombay metropolis. This area is more or less suburban to the metropolis and includes Thane, Kalyan and Ulhasnagar talukas where a number of organised modern industries are concentrated. The second zone comprises the industrially developing areas of Vasai, Bhivandi, Palghar and Dahanu. This zone needs industrial as well as residential planning. The third part includes the rest of the area of the district having conventional village industries, age-old cottage industries and primary processing agro-industries.

Before going into a detailed discussion of the industries in the district it is necessary to have a general assessment of the industrial growth of the district over a period of time. This is discussed in the following paragraphs :—

The following statement gives the statistics regarding the industrial activities in the district :—

Census year		Number and types of industrial activities	Total number of industrial units	Persons engaged in industrial activities		
				Total	Males	Females
(1)		(2)	(3)	(4)	(5)	(6)
1911	..	13	61	13,581	9,913	3,668
1921	..	24	340	23,575	18,420	5,155
1931	..	36	N.A.	24,029	10,739	13,290
1951	..	28	N.A.	52,890	49,220	3,670
1961	..	N.A.	N.A.	81,046	74,287	6,759
1971	..	N.A.	N.A.	1,70,700	1,61,973	8,727

N.A. = Not available

It may be noted here that the censuses of 1911, 1921 and 1931 did not adopt an industrial classification as we understand it today. It was only in 1951 and 1961 that a meaningful industrial and occupational classification was adopted. The 1951 Census divided the industrial activities in four groups, viz., (1) mining and quarrying, (2) processing and manufacture of food-stuffs, textiles, leather, and products thereof, (3) processing and manufacture of metals, chemicals and products thereof, and (4) processing and manufacture not elsewhere specified. The 1961 Census however gave an altogether different classification and hence incomparable with the previous data. It enumerated 81,046 persons as industrial workers under the main division of manufacturing. Though it is not possible to compare the proportions of workers in manufacturing industry over a period of time since 1911, it is clear from the above figures that Thane district has had an outstanding industrial growth. According to the Census of 1961 the district had 10.42 per cent of workers in the non-household industries which was the highest in the State. The percentage of workers, viz., 82.60 in the non-household industries to total workers in the district was also the highest in the State. As regards the total number of workers in registered factories and the proportion of factory-workers per thousand of total population, the district, of course barring the Greater Bombay, showed an impressive growth. The total number of workers in registered factories in 1961 was 35,399 which made 36.08 per cent of all workers engaged in industries or 21 factory-workers per thousand of total population which was higher than the average of twenty per thousand

of total population for Maharashtra. Thus, in this respect also the Thane district superseded all other districts in the State.

The 1971 Census has adopted more or less the same classification of economic activity, as that of the 1961 Census. The 1971 Census also speaks for the high industrial advancement of the district. It has recorded 1,70,700 persons engaged in industrial activities in the district. Besides, 11,448 persons were engaged in the unorganised sector of industries, viz., the household industries.

There are many types of industries in Thane district. The important amongst which are : woollen, cotton and silk textiles, strawboard, paper, paints and varnishes, razor blades, chemicals, dye-stuffs, rayon, nylon, resins, synthetics, drugs and pharmaceuticals, matches, iron and steel structures, machinery, electric cables and wires, radio sets and transistors, etc. Prior to 1882 there were few industries in the district. The old edition of the *Gazetteer* had described them under the category of "crafts" and included such industries as (1) salt-making, (2) silk-weaving, (3) cotton-weaving, (4) sugar-making, (5) plantain-drying, (6) comb-making, (7) wood-carving, (8) paper-making and (9) fibre-making.

In the sphere of small industries various products either as consumer goods or as ancillaries for large-scale industries are manufactured in the district. The total number of such registered factories increased from 107 in 1949 to 493 in 1961 and to 854 in 1970. The total number of workers in them also increased from 14,924 in 1949 to 35,399 in 1961 and to 96,601 in 1970. The cottage and small-scale industries in the district include hand-loom, power-loom, small engineering and manufacturing units etc. The indigenous industries of the district which among other include salt manufacturing, fishing have also increased to a great extent and have been modernised. The most important among the above-stated industries are described later on. Table No. 1 gives statistics regarding working factories in major groups of industries in the district since 1961. Table No. 2 gives the distribution of the working factories according to working strength for the same period.

It could be seen from table No. 3 that the Pune district has more working factories than Thane district but the average daily employment in major groups of industries is considerably higher in Thane district. The total number of factories also might increase in Thane district in near future because of the advantages accruing from vicinity of Bombay. In this connection it should be noted that the Master Plan for Industrialisation of the State which was prepared by Government had proposed the highest number of industries, viz., 19 to be opened up in the district. Under the circumstances the area of Greater Bombay which is very small and having been exploited fully for establishing

industries the only recourse for further expansion of the large-scale industries is to establish them in the adjoining areas in Thane. The Study Group appointed by the Government recommended that satellite townships should be established within a few hours' distance from the City of Bombay and in districts very near to Bombay, viz., Thane, Kulaba, Nasik.

Though the manufacturing industries constitute a significant factor of the economy of the district and place the district on a very high level so far as industrial growth of the State is concerned, they have not been able to reduce the pressure on land or they could not divert workers from agriculture within the district. There was an increase of about 3 per cent in the proportion of workers working on land as the number of cultivators and agricultural labourers together increased from 61.76 in 1951 to 64.47 in 1961.

However, the progressive industrial policy of the Government of Maharashtra and the role played by the organisations set up by the Central and State Governments as also the public sector undertaking would unfold more opportunities to the entrepreneurs who have been shy in locating industries in area away from the developed industrial complex. The Maharashtra Industrial Development Corporation has established industrial areas in Thane district at the following places, viz., Thane (Wagle Industrial Estate), Trans-Thane creek including Kalva industrial area, Dombivali, Ambarnath, Badlapur, Kalyan-Bhivandi area, Mira (Western Railway), Wangani (Central Railway), Palner (Vasai) and Boisar (Tarapur-Palghar). Besides, there are two industrial estates which have been organised under the co-operative sector, viz., the Bassein Taluka Co-operative Industrial Estate, Bassein and the Industrial Co-operative Estate, Palghar. The account of these industrial areas is given separately. The opportunities of growth of industries in the district are thus opened with the establishment of various industrial areas which would provide stimulus to industrial growth in the under-developed areas.

In the following pages an attempt is made to give more information about different types of industries in the district including factories registered under the Factories Act and cottage and village industries. The industries registered under the Factories Act have been grouped under different major groups based on the National Industrial Classification of 1970. An attempt is also made to judge growth of industries in the district since 1961. A comparative study of industries based on the two annual surveys of 1961 and 1966 is made wherever it is possible. Besides, a description of a few important and unique industries in the district is also given. At the end, information about trade union movement and labour organisation in the district is given.

ELECTRICITY GENERATION

Availability of electricity has been one of the main causes for the rapid industrial development of the district during the past decade or so. The district gets the bulk supply of electricity from the Koyana Hydro-Electric Project as also from the hydro-electric projects owned by Messrs. Tata Hydro-Electric Company in Kulaba district. The power distributing agencies in the district which purchase electricity in bulk from Messrs. Tata include the Bombay Suburban Electric Supply Ltd., the Thana Electric Supply Company Ltd., the Amalgamated Electricity Company Ltd. and the Bassein Electric Supply Company Ltd. The Maharashtra State Electricity Board is however the largest power-distributing agency in the district. Besides, there were three diesel power stations located at Dahanu, Palghar and Jawhar. However, the Maharashtra State Electricity Board took over the management of these agencies (Dahanu and Jawhar in 1965-66 and Palghar in 1969-70). The Chola Thermal Station, established in 1929 near Kalyan, belongs to the Central Railway. Most of the power generated through this thermal station is utilised by the Railways for electric traction on Bombay-Igatpuri and Bombay-Pune sections. The Tarapur Atomic Power Station which has ushered an era of utilisation of atomic energy for electricity generation, is also situated in the district. An account of the power-distributing agencies and the Tarapur Atomic Power Station is given below. This would include agency-wise consumption of electricity in the district on different items for the period between 1959-60 and 1971-72, while Table No. 4 *gives consolidated figures of consumption of electricity in the district prior to this period.

Thana Electric Supply Company Ltd: The Thana Electric Supply Company Ltd., established on 14th September 1927, distributes electric power for various purposes in a part of Thane district. The operational area of the company is 90.66 square kilometres and includes Thane, Mulund, Bhandup and Powai. The milage of its power line is 372.9 kilometres. The installed and utilised capacities (both transformer capacities) of the company are 46,100 KVA and 22,320 KVA, respectively. Its fixed capital amounted to Rs. 3,66,54,544 in 1971-72. It owns machinery costing Rs. 3,27,35,540. There were 415 workers in the employ of the company whose annual wage-bill amounted to Rs. 22,83,595. The *per capita* consumption of electricity utilised for all purposes and that particularly for industrial consumption in the operational area of the company are 336 and 213 units, respectively. Table No. 5 gives the quantity of power purchased and distributed** to

* *District Census Handbook, Thana, 1961*, p. 256.

**It includes the supply of electricity to consumers in the areas of Mulund, Bhandup and Powai in Bombay.

consumers by the company in its operational area for a few years since 1959-60.

Amalgamated Electricity Company Ltd.: The Amalgamated Electricity Company Ltd., established on 30th October 1936, distributes electric power to the Bhiwandi-Nizampur municipal areas. Its installed capacity is 27,250 KVA which is fully utilised. The fixed capital including building, equipment, machinery, etc., of the company as on 31st March 1972 amounted to Rs. 84,54,960. Its working capital and the total value of its machinery amounted to Rs. 10,68,500 and Rs. 79,85,974 respectively. The employees of the company numbered 145 whose annual wage-bill amounted to Rs. 6,97,836. The *per capita* consumption of electricity for all purposes together within the above-stated municipal area was 785 units and that particularly for industrial purposes it was 683 units. The company is licensed to supply electricity within the municipal area and as such it has not electrified other villages or towns except the Bhiwandi-Nizampur municipal areas. Table No. 6 gives the consumption of electricity as supplied by the company between 1959-60 and 1971-72. The rates per unit of power, utilised for various purposes, are given just below the units utilised under the respective purpose.

Bassein Electric Supply Company Ltd.: The company was established in May 1936. It is managed and controlled by the board of directors. The company only purchases power from Messrs. Tata Power Company and supplies it within the municipal limits of the Vasai municipality, the mileage of its power-line being 98.879 kilometres (H. T. Mains 9.822 kilometres, L. T. Mains 89.57 kilometres). The installed capacity of its receiving station transformers is 1,500 KVA, out of which 1,128 KVA is utilized. The fixed gross capital of the company including building, equipment, machinery, etc., as on 31st March 1972, amounted to Rs. 13,34,538 and the total value of the productive and other machinery was Rs. 12,42,552. The company had employed thirty-nine workers and paid Rs. 1,31,297 towards their annual wages. The *per capita* domestic consumption of electricity within the operational area of the company during 1971-72 was 30.80 units and that of industrial consumption it came to 25.42 units. The company till March 1972 has electrified eleven villages including the Vasai town which was electrified in May 1936.

Of the remaining ten villages, Kharala (part of Sandor), Navghar, Manikpur and Diwanman were electrified in 1956; Digha (part of Sandor), Khochivda (part of Mulgaon) and Vadavli were electrified in 1957; Naigaon and Kaular Kh. were electrified in 1958 and Karadia (part of Sandor) was electrified in 1959. The operational area of the

company was extended so as to comprise these ten villages but in 1957 the same was delimited and handed over to the Maharashtra State Electricity Board. It is most likely that the Board would take over the entire management of the company shortly. At present the company supplies electricity to Vasai municipal area including the villages of Malonde, Dhovali and parts of the villages of Sandor, Mulgaon and Karadi. The tariff charges which have been given effect to from 15th November 1972 for the supply of electricity are as follows :—

Class or purpose of supply	Rates per unit
(1) Domestic lights and fans.	Re. 0.40 per unit (monthly minimum charge of Rs. 3).
(2) Commercial lights and fans.	Re. 0.46 per unit (monthly minimum charge of Rs. 3).
(3) Heating refrigeration and other electrical appliances.	Re. 0.18 per unit (monthly minimum charge of Rs. 3 and in case of M.P. Rs. 3.50 per B.H.P. or part thereof).
(4) Industrial motive power ...	Re. 0.25 per unit (monthly minimum charge of Rs. 3.50 per B.H.P. or part thereof).
(5) Agricultural pumps ...	Re. 0.17 per unit (monthly minimum charge of Rs. 3.50 per B.H.P. or part thereof).

Table No. 7 gives the amount of electricity purchased by the company and its distribution from 1959-60 to 1971-72.

Bombay Suburban Electric Supply Ltd.: The Bombay Suburban Electric Supply Ltd. also supplies electricity to Bhayandar urban area of the Thane district, its date of establishment being 29th May 1926. The company has also electrified some villages in the area. It is managed and controlled by the Board of Directors. The total area including that of Thane district to which power is supplied by the company is 368 square kilometres and the milage of its power-line is 789 kilometres (H.T.) and 892 kilometres (L.T.). Its installed capacity is 1,79,000 KVA, out of which 1,57,600 KVA is utilised. The company purchases power from Messrs. Tata. The fixed capital in building, equipment, machinery, etc., amounted to Rs. 17,32,36,060 and the working capital was Rs. 95,31,615 in 1972-73. The total value of the productive machinery amounted to Rs. 16,28,59,298. The total number of workers was 1,604 whose annual wage-bill amounted to Rs. 97,90,297. The Maharashtra State Electricity Board is intending to take over this agency shortly.

The company has so far electrified eleven villages in the Thane district. The names of such villages and the dates on which they have been electrified are given in the following statement :—

Name of village			Date of electrification
Bhayandar	...	...	November 1958.
Rai Murdhe	...	...	April 1965.
Mira	...	...	June 1965.
Uttan	...	...	July 1965.
Morva	...	...	September 1965.
Dongari	...	...	January 1966.
Ghodbundar	...	...	April 1966.
Kashi	...	...	May 1966.
Nanghar	...	...	July 1967.
Khari	...	...	January 1968.
Goddeo	...	...	January 1968.

Table No. 8 gives supply of electricity and its consumption for various purposes in the district from 1967-68 to 1972-73.

Maharashtra State Electricity Board: The board, established on 1st May 1960, is the largest power-distributing agency in the district. There is no power-generating station of the board in the district. However, the power generated by the board at Nasik, Koyna, etc. is brought in at its Kalwa receiving station from where it is supplied to various consumers. Power is also purchased from Messrs. Tatas at certain points as also from Tarapur Atomic Power Station of the Government of India. Power is being supplied to various parts of the district except Bhivandi town, Vasai town, Thane city, Bhayandar urban area and some industries around Kalyan and Thane townships.

The board's power-lines in the Thane district are as follows :—

Lines			Kilometres
(i) 100 KV	...	...	12.80
(ii) 33 KV	...	...	278.77
(iii) 22 KV	...	...	1,542.53
(iv) 11 KV	...	...	497.00
(v) L.T.	...	...	2,493.60

The rate per unit of power for different purposes excluding electricity duty and fuel charges in the district are as follows :—

			Paise per unit
(i) Residential L and F	...	...	31
(ii) Commercial L and F	...	...	35
(iii) Domestic L and F	...	...	13.2
(iv) Commercial L and F	...	...	25
(v) Industrial power (L.T.)	...	...	20
(vi) Agricultural pumps (L.T.)	...	...	20
(vii) Street light	...	...	20

The *per capita* consumption of electric power in Palghar sub-division for domestic and industrial purposes was 12.8 and 22.9 units respectively in 1971-72. In the Kalyan (rural) sub-division the *per capita* consumption of electricity for domestic and industrial purposes was 8.2 and 3.7 units respectively, whereas it was 71.83 and 33.4 units in the Ulhasnagar sub-division. However, the *per capita* domestic and industrial consumption of electricity supplied by the board in the district was 11.59 and 292.16 units respectively.

The total number of workers of the board in the district was 2,024 whose annual wage-bill approximately amounted to Rs. 1,04,95,730 in 1971-72.

Table No. 9 gives the consumption of electric power supplied by the board in the district from 1964-65 to 1971-72, while the Table No. 12 gives information regarding the electrification programme both in urban and rural areas as also the number of pumps supplied with power by the board for agricultural purposes in the district.

Kalyan Power House, Chola : The thermal station at Chola was set up with 4×10 M.W. sets in 1929 to meet the requirements of traction load and ensure uninterrupted train service over the electrified sections between Bombay-Igatpuri and Bombay-Pune of the Central Railway.

The power house was connected with Messrs. Tata's power stations to have the facility of inter-change of power between the Railways and Messrs. Tatas. The generation in excess of the requirement of the Railways if any is sent to Messrs. Tatas in bulk and short-fall, if any, is purchased from Messrs. Tatas.

Due to phenomenal industrial development in the Bombay region and increase in the traffic on the electrified sections of the Central and Western Railways, during the post-war period two sets of 18 MW each were installed in 1952 and three sets of 18 MW each were installed within this power house by the Government of Maharashtra in 1953-54 and they were purchased by the Railways in 1958. In 1959 there was a further extension of the power house with the installation of one 18 MW set. With this, the installed capacity of the power house increased to 136 MW and firm generating capacity to 100 MW.

The 4×10 MW low pressure generating sets installed in 1929 were finally retired in 1969. The present installed capacity of the power house is 96 MW with a firm generating capacity of 60 MW. Of the total installed capacity, 40 MW is utilised.

The fixed capital invested in buildings and machinery plant was Rs. 1,33,68,000 and Rs. 7,65,35,000 respectively in 1971-72 while the working capital of the power house in the same year amounted to Rs. 2,50,00,000. The total number of employees of the power house

was 1,032. Of this, 854 were workers, 124 office personnel and 54 supervisory staff. The annual wage-bill of the employees amounted to Rs. 50,58,000.

Table No. 10 gives information regarding the electricity generated and purchased by the power house from 1958-59 to 1971-72.

Tarapur Atomic Power: The completion of Tarapur represents a mile-stone in India's atomic energy programme.

In August 1958, a decision was taken to include an atomic power station in the western region of India in the Third Five-Year Plan. In the summer of 1960, Tarapur was selected out of twenty likely sites in the Bombay-Baroda region. Being highly industrialised, this region's demand for power runs far ahead of the available load. Lack of fossil fuel and hydro resources however severely restricts growth of conventional power capabilities. Hydro power potential in the region is low and fluctuating as the rivers, being mostly rain-fed, are not dependable.

Under the circumstances, nuclear energy was considered the best alternative. A nuclear power plant is a steady source of power unaffected by failure of rains. Besides, such a plant can operate at a high load factor in the region.

Tarapur, about 97 kilometres north of Bombay city, is considered by experts to be one of the best sites for a nuclear power station. Being on the coast the plant can draw cooling water, nearly 2,200 million litres per day, right off the sea. Besides, the site has a strong rock foundation, good meteorological and environmental conditions and, in the context of safety, a low population density.

An Indo-U.S. Bilateral Agreement for Co-operation relating specifically to the project was signed in August 1963. This agreement includes commitment for fuel supply through the life of the station and exchange of unclassified information relating to research and development including BWR technology and the use of plutonium.

In December 1963, the United States Agency for International Development granted an aid of \$ 80 million (approximately Rs. 60 crores) for the foreign exchange portion of the project. Out of this a saving of \$ 5 million (Rs. 3.75 crores) was made in the course of the project as more and more equipment and services were procured indigenously.

The U. S. Atomic Energy Commission, under a contract signed in May 1966, provided enriched uranium oxide fuel worth \$14.5 million (approximately Rs. 10.88 crores) for the initial charge, on a long-term credit basis. Under the contract, the U. S. Atomic Energy Commission will continue to provide fuel through the life of the station.

The work on the project started in October 1964. At its peak, the station employed over 6,500 men working round-the-clock, seven days

a week. Now that the station is fully operational, it is manned by an operating and maintenance staff of 250 only and operated round-the-clock. The most important part of the work of installation and erection was executed by U.S.A. firm which was entrusted with the work after inviting global tenders.

The station consists of two boiling water type reactors, each helping generate over 200 MWe. Heat created by the fission of uranium atoms boils water in the reactor core and the steam rising up is led under pressure, after drying, to the turbine which is coupled to a generator. The total power generated is well over 400 MWe, out of which about 20 MWe is consumed at the project itself while 380 MWe is being fed into the inter-State grid. The electrical grid systems in the western region of Maharashtra and Gujarat have been integrated through the switch-yard at the Tarapur station and the combined grid has a capacity of about 2,300 MW.

Fuel is transferred to and from the reactors under water, through an adjacent storage pool. The irradiated fuel residue is re-processed in a Reprocessing Plant. This plant, being put up by the Bhabha Atomic Research Centre, will extract plutonium and residual uranium. When the technology of using plutonium in power reactors is perfected, the station is contemplated to operate on plutonium fuel wholly or partially, thus reducing the need for importing enriched uranium.

The expected life of the plant is about twenty-five years. Initially, 40 tonnes of enriched uranium was fed to each reactor. No fresh fuel is required for two years. After that, both the reactors will together require about twenty tonnes per annum. Though fuel elements have been supplied by the U. S. for the first charge, in future, fuel will be fabricated in India itself out of the enriched uranium which will be imported from the United States.

One of the important considerations while setting up a nuclear power plant is safety. Apart from taking the first precaution of locating the plant away from a large town, a series of safety measures have been provided into the Tarapur plant system itself for arresting even infinitesimal degrees of radio-activity. This has been done by making the plant walls of thick reinforcement concrete and enclosing the reactors separately inside a shell of steel (drywell), each with a pressure suppressing pool of water. In addition, exhausts are continuously monitored for radio-activity and are released into the atmosphere from a 112-meter-high stack. Data on environmental and dietetic radio-activity in the area is collected for the study of the norms for measuring radio-activity fluctuations. Constant monitoring of environmental radio-activity is a part of the operational functions at the station.

An idea of the fantastic difference in terms of economy and resources between a conventional thermal station and a nuclear one can be conveyed from the fact that to produce the same load of electricity as at Tarapur, it would require almost one million tonnes of superior grade coal per year or, about three train-loads per day as against only twenty tonnes per year of uranium.

In building this, the largest operating nuclear power station in Asia, American and Indian engineers and technicians have worked shoulder to shoulder on almost all aspects of the job. Indian project personnel have participated fully at every stage in giving shape to the Station, from drawing up specifications, reviewing and improving designs, supervising erection, to the testing and commissioning of different units of the complex. Besides the services of the consultants, experts and the project staff themselves, specialist advice was made available by the Bhabha Atomic Research Centre at Trombay. The Bhabha Centre also did a good deal of work on the fabrication of control consoles and certain nuclear instrumentation, and supplying starting sources for reactors. Special mention must be made of the assistance extended to the Project by the U. S. Atomic Energy Commission which readily provided specialised technical advice.

Today, atomic power comes down in meaningful terms to the man-in-the-street as he knows that the lamp he lights or the radio he tunes draw from the atom for their sustenance. The immediate impact of the Tarapur power station was the increase in the supply of power to the most industrialised region of the country. Already there are plans to extend rural electrification, bringing in its wake greater use of pumps for irrigation and resultant boost to agricultural production.

MANUFACTURE OF MACHINERY AND MACHINE TOOLS

Manufacture of machinery, machine tools and parts except electrical machinery taken together with the iron and steel basic industry and metal products is by far the most important and the biggest group of industries in the district and includes manufacture of agricultural machinery, manufacture of prime movers, boilers, refrigerators, machine tools, computing and accounting machinery, industrial machinery for food and textile industries, machinery for chemicals, paper, cement, etc. It is also of great importance in the structure of country's economy. It provides machine tools and machinery to other industries in the country. Many of the machine tools manufactured in the factories in Thane district are substitutes for imported ones. Hence their importance in the country's economy.

In view of the importance of this industry the planning commission of India laid down the order of priority for the expansion of industrial

capacity, in the country and accorded a priority to the development of engineering industry including heavy and machine-building industry.

Thane district is an important centre of this industry. The growth in this sector gathered momentum since 1961. The following statement gives the growth of engineering industry in the district for a few years since 1948 :—

Year				Number of factories
1948	...	...	...	7
1961	...	...	...	17
1962	...	...	...	20
1963	...	...	...	22
1964	...	...	...	30
1965	...	...	...	42
1966	...	...	...	55
1967	...	...	...	63
1968	...	...	...	69
1969	...	...	...	74
1970	...	...	...	83
1975	...	...	...	182

It can be seen that within a period of fourteen years the total number of factories in this group increased from 17 in 1961 to 182 in 1975. The total number of employees in the industry also increased from 5,158 in 1961 to about 13,126 in 1975. The following statement gives information about the productive capital, gross out-put and value added by the industry for the years 1961 and 1966 :—

(Rupees in thousands)				
Year	Productive capital		Gross out-put	Value added
(1)	(2)		(3)	(4)
1961	7,57,35		6,95,64	1,75,85
1966	14,51,47		16,30,35	5,21,27

The following statement gives the percentage shares of the highly industrialised district in Maharashtra in productive capital, employment, out-put, and the value added by the engineering industry :—

District	Year	Productive capital	Employment	Out-put	Value added
Greater Bombay	.. 1961	37.42	51.29	46.11	50.46
	.. 1966	40.13	46.47	43.44	45.09
Pune .. ..	.. 1961	22.00	15.01	23.31	21.72
	.. 1966	14.32	22.90	30.16	26.68
Thane .. ..	.. 1961	25.57	14.11	17.10	13.70
	.. 1966	15.18	15.30	13.13	14.85

The comparison of productive capital, employment, gross out-put and value added by the industry in the district with those in

Maharashtra State and India is given below. However, the comparison would give only a broad picture as the figures for the State and India are for the year 1970 and those for the district are for 1966 :—

	Registered factories	Productive capital Rs.*	Employ- ment	Gross out-put Rs.*	Value added Rs.*
(1)	(2)	(3)	(4)	(5)	(6)
Thane district ..	55	14,51,47	9,210	16,30,35	5,21,27
Maharashtra State ..	240	1,12,10,90	51,224	1,72,62,55	45,39,45
India ..	944	3,96,74	2,02,017	5,34,68	1,49,35

*The figures of Thane district and Maharashtra State are in thousand rupees and those of India in lakhs.

(i) Iron and steel industry and (ii) manufacture of metal products except machinery and transport equipment also form an important category of industry in the district. The first group, viz., the iron and steel industry covers basic metal and alloys industries and includes manufacture of iron and steel, foundries for casting and forging iron and steel, manufacture of ferro-alloys, copper and zinc, melting and refining of metal etc. The second group on the other hand includes manufacture of fabricated metal products such as metal cans, vaults, safes, drums, tanks, manufacture of structural metal products, metal utensils etc. The following statement gives the growth in the number of factories included in these two groups in the district since 1961 :—

	Year	Number of factories
(i) Iron and steel industry	1961	10
	1962	11
	1963	18
	1964	26
	1965	35
	1966	45
	1967	49
	1968	47
	1969	51
	1970	55
	1975	110
(ii) Metal products except machinery and transport equipment.	1961	17
	1962	21
	1963	31
	1964	40
	1965	54
	1966	81
	1967	101
	1968	97
	1969	104
	1970	106
	1975	138

The statistics regarding productive capital, employment, gross out-put and value added by the factories in the two categories of industries in Thane district in 1961 and 1966 are given below :—

			Employment	Productive capital Rs.*	Gross out-put Rs.*	Value added Rs.*
(i) Iron and steel basic industries—						
1961	..	..	431	42,03	1,00,89	11,60
1966	..	..	3,546	6,21,45	7,93,91	1,81,79
(ii) Metal products except machinery and transport equipment—						
1961	..	..	664	97,91	65,48	13,12
1966	..	..	2,567	4,88,88	4,65,24	70,81

*Rupees in thousands.

About thirty factories in this industry are more prominent as regards production, capital investment and employment in the district, which are listed below :—Mukund Iron and Steel Works Ltd., Voltas Ltd., Garlic Engineering, National Rayon Corporation Ltd., National Machinery Manufacturers Ltd., Christensen Longyear (I) Ltd., B. R. Herman Mohatta (India) Pvt. Ltd., ION Exchange, BASF India Ltd., Ex-cell-O India Ltd., Tak Machinery, Shukla Manseata Ltd., G. G. Dandekar Machine Works, Precision Fasteners Ltd., J. K. Engineering, Raman and Demon Ltd., R. H. Windsor (India) Ltd., Bharat Bijlee Ltd., Caprihans (India) Pvt. Ltd., Vidyut Metallics Pvt. Ltd., Dagger Frost Tools Ltd., Needle Roller Bearing Co. Ltd., Fuel Injections Ltd., Bharat Foster Finch, V. Pamlays Pvt. Ltd., De-Smet (India) Pvt. Ltd., Blanden Cole, Division of Chemaux Pvt. Ltd., Dalal Engineering Pvt. Ltd., W. G. Forge and Allied Industries Ltd., Indian Smelting and Refining Co. Ltd., Allsteel, Gleitlager (India) Pvt. Ltd., and Pressure Cooker and Appliances Pvt. Ltd. Some of these factories export machinery, machine tools and accessories to foreign countries.

A survey of such industries was conducted in 1975, the information based upon which is given below :

Of the 430 factories engaged in manufacture of machinery, machine tools, parts, iron and steel basic industries, and manufacture of metal products the information of about 116 factories was collected. The

following statement gives total number of employees, capital investment in (1) land, (2) building, (3) machinery etc., (4) others (like transport, welfare etc.), and turn-over of these factories :—

(Rupees in lakhs)

Industry	Number of factories surveyed	Number of employees	Capital investment in					Turn-over
			Land	Building	Machinery etc.	Others		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
(1) Manufacture of machinery, machine tools and parts.	76	2,268	23.72	1,33.21	2,85.50	73.49	11,42.23	
(2) Iron and steel basic industries.	40	2,530	28.52	1,33.01	3,00.19	23.15	9,97.71	
(3) Manufacture of metal products.								
Total ..	116	4,798	52.24	2,66.22	5,85.69	96.64	21,39.94	

The raw materials required by these factories included pig iron, coal, coke, steel plates, sheet metal, ferrous materials, stainless steel wire rods, cast iron, M. S. steel, bars and wires, brass, tin plates, high speed steel, combined steel, alloys steel, etc. Most of these items are available at Bombay, Calcutta and Rourkela. Stainless steel was imported from Japan and U. S. A., high speed steel from England and West Germany and combined steel from U. K. The ceramic condensers and electronic valves were imported from Japan and Germany respectively. About thirteen industrial units were exporting their products to U. S. A., Dubai, Asia, Bangladesh, Tanzania, Nigeria, Iran, Egypt, Sri Lanka, Saudi Arabia, Australia, Muscat, Kenya, etc. The products included wire nails, bright bars, expandable polystyrene beads, buses, oil circuit breaks, bicycles, boilers, tungston carbide etc.

Information about a few important factories under this category in the district is given in the following pages :—

Shukla Manseta Industries Pvt. Ltd. started manufacturing centrifugal pumps in 1959 in the district. There were about four such factories in the district in 1975 which employed about 300 persons. Of these, 200 workers were employed in the above-referred factory. The working of the factory is spread throughout the year. The raw materials required for the production of such pumps included pig iron, brass and

gun metal. Pig iron is obtained from Bhilai and brass and gun metal from Bombay. Furnace oil is mainly consumed for the production of pumps. The machines required for the production of pumps consist of horizontal boring machines (C Z make), pillar and radial drilling machines (C Z make), balancing machine (Germany) and lathes of various sizes of Kirloskar and H. M. T.

The products are mainly marketed in the country. The industry has just started exporting some pumps. The products include WASP Ejecto pumps with a maximum suction lift of 120' to 300' and the capacity range from 960 LPH to 4350 LPH ; Bulldozer pumps with a maximum suction lift of 25', discharge head : 1155', and the capacity range 140 LPH to 7,380 LPH ; deep well turbine pumps of 6" and 8" sizes suitable for total head upto 400' with a capacity range from 50 LPM to 2,460 LPM ; horizontal split case pump, self-oiling bulldozer power pump, 'H D' series high head side suction centrifugal pump, 'T' series turbine type pump, rotodynamic 'R D' series centrifugal pump, sprayers etc.

B. R. Herman and Mohatta (India) Pvt. Ltd. is one of the most important engineering works in the district. It was established in 1947. About 500 workers are employed in this factory. Its working is spread throughout the year. It has electric arc furnaces for steel melting with which it manufactures its own ingots. However, raw materials such as M. S. billets, graphite electrodes, ferro silicon etc., are available at Durgapur, Bhadravati, Bhilai etc. Some raw materials are imported through S.T.C./PEC. All the important machines manufactured by GEC, Calcutta, are locally available. There are about ten factories of this type in the district, and Messrs. Mukund Iron & Steel Works Ltd., Bombay, is the oldest among them.

The important products include M. S. round bars and ingots. The other products are rolling mills, mining and crushing equipment steel and grey iron casting, lifting hooks, etc. The M. S. round bars and ingots cost Rs. 2,000 and Rs. 1,500 per metric tonne respectively.

Messrs. Gleitlager (India) Pvt. Ltd. is an unique factory which produces "GMH" tractor bearings and bushes in the district. It was established in 1962. Its working is spread throughout the year. It has employed about 220 workers. The raw materials required for the production include non-ferrous metal and seamless steel tubes, the former being channelled through the Government agencies. The machines consist of inside and outside diametres, length cutter, chamfering, grooving, drilling, splitting, pressing and metal bonding. The imported machines are generally purchased from Germany and Poland while indigenous ones are mainly purchased from Messrs. Hindustan Machine Tools.

The company has entered into a collaboration with a Japanese firm for technical know-how.

First preference is given to indigenous orders as the items of production are import substitutes.

Ion Exchange (India) Ltd. is the Indian subsidiary of the Permutit Company Ltd., of U. K., international leaders in water treatment and ion exchange technology. The Indian company operates in full technical co-ordination with the parent organisation and is the only Permutit subsidiary which manufactures Permutit ion exchange resins outside the United Kingdom. The other Permutit subsidiaries and associate companies operate in more than fifty countries including Australia, South Africa, West Germany, Portugal, Spain, Italy and Argentina. Ion Exchange (India) have their technical and commercial offices at Bombay with branches in Madras and New Delhi. Ion Exchange resins are manufactured at the Chemical Production Division located at Ambarnath. Research and testing laboratories are also located at Ambarnath. Ion Exchange (India) is manned by fully qualified engineers and chemists, many of them trained with Permutit, U. K.

Very rarely can raw water be used without treatment for industrial purposes like boiler feed or process use. The extent of treatment and quality of treated water are determined by the end use or uses.

From 1965 the resins as well as the high capacity Permutit cation exchange resins are manufactured in India by Ion Exchange (India) Ltd. It is the only company in India which manufactures water treatment plants as well as both cation and anion exchange resins used in them—thus offering undivided responsibility for plant performance right from the design stage.

Ion exchange techniques are now widely employed for chemical process applications like conversion, purification, concentration, and fractionation or chromatography. Ion exchange resins can be employed as catalysts to promote reactions. Some of the proven industrial uses are, treatment of water-soluble organic compounds like sugar, glucose, glycerine and gelatine, recovery of metals etc., for which plants have been supplied in India.

The factory at Ambarnath is the largest in India and manufactures the entire range of ion exchange resins. The factory is modelled on the Permutit resins and chemical production plant at South Wales, U. K. The Ion Exchange (India) Ltd. export ion exchange resins and plants notable to the U.A.R., Thailand, and East Africa.

Manufacture of (1) rail-road equipment, (2) motor vehicles, and repair of motor vehicles is also an important industry as it plays an important part in providing the infra-structure for development of other industries in the country.

The transport equipment industry includes ship building and repairing, manufacture of diesel, steam and electric locomotives, manufacture of railway coaches and wagons, manufacture of motor cars, buses, trucks, jeeps, motor-cycles, rikshaws and spare parts.

The following statement gives the year-wise total number of such factories in the district since 1961 :—

Year				Number of factories
1961	...	...	...	11
1962	...	...	...	11
1963	...	...	...	11
1964	...	...	...	12
1965	...	...	...	14
1966	...	...	...	15
1967	...	...	...	16
1968	...	...	...	15
1969	...	...	...	15
1970	...	...	...	17
1975	...	...	...	29

The following statement gives information about this industry on the five indicators, viz., productive capital, employment, gross out-put and value added in 1961 and 1966 :—

(Rs. in thousands)					
Year	Registered factories	Productive capital	Employment	Gross output	Value added
1961	11 (2·24)	1,31,39 (2·92)	1,392 (5·23)	1,20,38 (2·46)	43,26 (3·18)
1966	13 (1·80)	11,66,48 (7·41)	4,565 (6·72)	8,22,69 (4·51)	2,19,81 (4·17)

Note.—Figures in brackets are the percentages with respect to the corresponding district totals.

Whatever progress this industry has made in the district is considerably higher if the percentage shares of the industry in the district in respect of the important indicators reflecting the degree of industrialisation are compared with other highly industrialised districts

in the State. The following statement gives such comparative figures of percentage shares :—

MANUFACTURE OF MOTOR VEHICLES

Year	Productive capital			Employment		
	Greater Bombay	Thane	Pune	Greater Bombay	Thane	Pune
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961*	.. 81.93	1.78	15.67	83.52	1.48	14.50
1966	.. 61.20	29.66	5.19	76.35	10.53	12.59

Year	Out-put			Value added		
	Greater Bombay	Thane	Pune	Greater Bombay	Thane	Pune
(1)	(8)	(9)	(10)	(11)	(12)	(13)
1961	.. 94.02	0.41	5.40	93.30	0.45	6.19
1966	.. 83.75	8.64	7.39	84.08	8.81	6.76

*Note.—Nagpur district had 0.62 per cent productive capital, 0.50 per cent employment, 0.17 per cent out-put, and 0.06 per cent value added on account of this industry in 1961.

It can be seen from the above statement that in 1961 the industry was located only at four centres in the State. However, it was on a very small scale at Nagpur. Subsequently after five years, in 1966 the industry developed in the districts of Kolhapur, Sholapur, Nagpur, Sangli and Satara.

The comparison of the productive capital, employment, gross out-put, and value added by the industrial group in the district with those of the Maharashtra State and of India is given below. The statistics for the State and India are for the year 1970 while those of the district are for 1966 :—

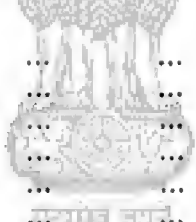
	Registered factories	Productive capital	Employment	Gross out-put	Value added
(1)	(2)	(3)	(4)	(5)	(6)
		*Rs.	*Rs.	*Rs.	*Rs.
Thane District	.. 13	11,66,48	4,565	8,22,69	2,19,81
Maharashtra State	.. 81	54,65,77	48,167	1,04,75,73	24,88,53
India	.. 365	4,20,52	3,08,775	5,90,63	1,67,76

* The figures of Thane district and Maharashtra State are in thousand rupees and those of India in lakhs.

The Prominent companies engaged in this industry in Thane district are listed below : Premier Automobiles Ltd., Kothari Auto Parts Manufacturers Pvt. Ltd., Sion Garage, Shah and Sanghi, Teksons Pvt. Ltd., Tak Machinery Ltd., Fuel Injections Ltd., Bharat Gears Ltd., Hamilton Industries Pvt. Ltd., Modern Mechanical and Marine Works Pvt. Ltd., K. T. Pvt. Ltd., and Speedlap Industries.

CHEMICALS AND CHEMICAL PRODUCTS

Basic industrial chemicals, including fertilisers, vegetable and animal oils and fats ; manufacture of paints, varnishes and lacquers ; and manufacture of miscellaneous chemical products which can be classified as chemicals and chemical products is an important industry in Thane district. This industry has helped in the development of other industries in Thane, Bombay and other parts of the country. An account of some factories and the development and contribution of the industry as such to the economy will be given subsequently. Prior to that a look into the past will disclose how the industry has developed. The following statement gives the total number of such factories in the district since 1961 :—



Year		Number of factories
1961	... ..	36
1962	... ..	44
1963	... ..	46
1964	... ..	54
1965	... ..	65
1966	... ..	70
1967	... ..	88
1968	... ..	94
1969	... ..	109
1970	... ..	114
1975	... ..	184

It can be seen that the industry has been developing at a faster rate since 1966. This industry is mainly concentrated in the Trans-Thane Creek and Belapur Road industrial area. During the enquiry it was reported that this area prior to 1965 was bereft of any industries and communications. The bigger factories manufacturing chemicals and chemical products in this area are Pfizer, Lubrizol India Ltd., Polyolefins Industries Ltd., NOCIL, Herdillia Chemicals Ltd., BASF (India) Ltd., Star Chemicals, Indofil Chemicals Ltd., Phoenix Chemical Works, etc. The chemical industries are also found in other parts of the district, viz., Wagle Industrial area, Pokhran Road (Thane City), Ambarnath and Dombivali.

The following statement gives the statistics regarding this industry in the district in 1961 and 1966 :—

(Rupees in thousands)					
Year	Number of registered factories	Productive capital	Employment	Gross out-put	Value added
(1)	(2)	(3)	(4)	(5)	(6)
1961	..	16	15,54,36	4,644	14,58,18
		(3.25)	(34.55)	(17.46)	(29.76)
		20	3,41,19	2,621	5,21,50
		(4.06)	(7.58)	(9.86)	(10.64)
Total	..	36	18,95,55	7,265	19,79,68
		(7.31)	(42.13)	(27.32)	(40.40)
1966	..	30	24,07,00	5,485	28,59,62
		(4.17)	(15.25)	(8.07)	(15.67)
		42	13,44,33	3,013	14,02,86
		(5.83)	(8.52)	(4.44)	(7.69)
Total	..	72	37,51,33	8,498	42,62,48
		(10.00)	(23.77)	(12.51)	(23.36)

Note.—Figures in brackets are the percentages with respect to the corresponding district totals.

Two figures for every year for each indicator denote sub-classification of the industrial group into (1) basic industrial chemicals including fertilisers, and (2) manufacture of paints, varnishes, lacquers and miscellaneous chemical products.

The following statement gives the percentage share of this industry in Thane district in comparison with that in Greater Bombay and Pune Districts :—

District	Productive capital		Employment		Out-put		Value added	
	1961	1966	1961	1966	1961	1966	1961	1966
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Greater Bombay	48.21	73.15	50.64	53.40	50.57	56.48	45.74	53.74
	79.43	77.31	80.28	76.92	87.87	82.03	87.13	79.52
Thane	.. 44.95	20.75	35.86	30.03	40.65	35.04	47.69	40.72
	6.21	10.87	8.73	7.27	5.19	7.92	5.50	9.67
Pune	.. 3.54	3.50	5.21	7.95	5.26	5.48	3.90	6.52
	11.78	9.09	6.13	10.64	4.46	7.25	5.48	8.52

Source.— *Quarterly Bulletins of Economics and Statistics*, Volume VII, No. 4, January-March 1967, p. 41 and Volume XIV, No. 1, April-June 1973, p. 15 of the Directorate of Economics and Statistics, Government of Maharashtra.

Note.—Two figures for every year denote two groups of industries, viz., (1) basic industrial chemicals including fertilisers and (2) manufacture of paints, varnishes lacquers and miscellaneous chemical products.

It can be seen from the above statement that excluding Greater Bombay, the chemical industry in Thane district stands first in the State.

A sample survey of this industry was conducted by this department in 1975 and information of 73 chemical factories and eleven pharmaceutical companies was collected. The following statement gives employment pattern, the capital investment and turn-over of these units.

(Rupees in lakhs)

Industry	Total Number of employees	Capital investment				Turn-over
		Land	Building	Machinery	Others	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Chemical industries.	3,005	1,75.16	3,24.98	18,23.16	1,23.29	49,16.08
(2) Pharmaccu-ticals.	814	13.27	80.81	1,34.95	9.09	8,45.16

The raw materials required for the chemical plants among others include bauxite, rock phosphate, soda ash, caustic soda, hydroxide, quartz, ethyl hexanal, methyl alcohols, different types of solvents and acids, etc. These are mostly available at Bombay and some of them are brought from Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Rajasthan, Gujarat, Assam, Kerala, Bengal, etc. A few are also imported from West Germany and Japan. About nine factories are found to export their products such as fine chemicals, zinc oxide, phosphoric acid, industrial soaps, chemicals used in textile industry to Bangkok, Thailand, Japan, Germany, U.K., U.S.A., Poland, Belgium, Italy, Iran, Dubai, etc.

Of the eleven pharmaceutical units, six units export their products to Australia, Spain, U.S.A., Sri Lanka, Nairobi, Nepal, Nigeria, U.K., Japan, Kenya, Saudi Arabia, Dubai, Singapore, etc. The raw materials required by these pharmaceutical units include caustic soda, phenol, iodine, different types of acids, amidophyrin, vitamin 'C' plain and coated, bromile, methanal, etc. Most of them are available in our country.

The following manufacturing companies are important and unique in their respective fields. A short account of each one of them is given in the following paragraphs :—

Standard Alkali was established in 1967. It is a new name given to the chemicals division of the Standard Mills Co. Ltd. and still continues to be a part of the Mafatlal Group. The range of its production includes

a number of basic inorganic and organic chemicals, *viz.*, caustic soda, caustic potash, potassium carbonate, chlorine, hydrochloric acid, ethyl chloride. The company will also have its own well-equipped carbon tetra-chloride and chloroform plant very soon.

All the products of the company come from an integrated complex of production facilities employing the latest technology. Electrolysis is the main process of producing the above products. The raw materials required for the production include salt and potassium chloride. About 600 workers are employed in the factory. The products are also exported to Australia, U.K., Tanzania, Kuwait, Indonesia, Kenya, Sri Lanka, U.A.R., Mauritius, Uganda, etc.

Konkan Chemicals Pvt. Ltd. was established on 26th February 1970. It requires petro-chemical products for producing formaldehyde and hexamine. Reactor and distillation column are the important machines required for the production. They are fabricated as per the requirement by local manufacturers. About 41 workers are employed in the factory. Oxidation of methanol to formaldehyde is the main process of production. The production is entirely for home consumption. The prices of the formaldehyde and hexamine were Rs. 2,600 and Rs. 18,000 per metric tonne, respectively.

Savita Chemicals Pvt. Ltd. is a known name in the world of petroleum specialities. It was a pioneer in the manufacture of all-Indian liquid paraffin and white oil in India. It was first established on a small scale at Saki Naka, a suburb of Bombay, in 1961 and subsequently shifted to Thane-Belapur industrial complex in 1971. In 1962 Savita Chemicals emerged with a series of emulsifiers and mosquito larvicidal oil additives and exported for the first time from India some quantity of non-ionic emulsifier to Shri Lanka. In 1965 again the Savita Chemicals was a pioneer in the production of petroleum jelly in India. Its plant in the Belapur industrial area was also a pioneer in the manufacture of liquid paraffin and white oil from indigenously available lube oil base stocks and also the valuable by-product, *viz.*, sodium petroleum sulfonate. In 1971 it produced transformer oil meeting Indian Standards Institute specifications. It will soon produce calcium, barium sulfonates, cable oils, etc.

Herdillia Chemicals Ltd. was established in 1963. It is a unique factory in the district which produces phenol, acetone, phthalic anhydride, diacetone alcohol, dioctyl phthalate. It receives raw materials from NOCIL, Union Carbide, Chembur and Indian Petrochemicals Ltd., Koyali. There are only three factories of this type in the district, the other two being NOCIL and India Carbon. It has a technical collaboration with Universal Oil Products, U.S.A., British Petroleum, U.K. and Scientific Design Company of U.S.A. About 480 workers are employed

in the factory. The production of the company is basically for local consumption.

Richardson Hindustan Ltd. was incorporated in 1964. It commenced its commercial production in 1966. Its working is spread throughout the year. Furnace oil is the main fuel consumed for production. It requires pharmaceutical grade raw materials for its products. Most of them are locally available. However, some of the raw materials are imported from countries like U.S.A., France, Switzerland, etc. The machines required for the production include S. S. Reactors, high vacuum pumps, low temperature refrigeration compressor, hard candy making equipment, centrifuges, crystallisers, various types of packing equipment. Most of these are imported from U.S.A. and Germany. The total number of persons employed in the factory as on October 31, 1975 included 73 technical and 439 non-technical workers. The products of the company consist of Vicks Vaporub, Vicks Inhaler, Vicks Cough drops, Vicks Formula 44, Clearasil, Tonos-7, fine chemicals, etc.

The company has financial and technical collaboration with Richardson-Marrell Inc., U.S.A., which holds 55 per cent of the total shares. Most of the production is for home consumption. However, some products are exported to countries like Singapore, Thailand, Malaysia, France, U.S.A. etc.

Rallis India Ltd. (Pesticides Division), Belapur Unit, was established in 1966. It is a pioneering industry in the field of pesticides in the country and has been in this line of business for the last about 35 years. The working of the factory is spread throughout the year. It produces Rogor 30E and Sumithion 50E, the prices being Rs. 60,000 and Rs. 77,000 per K1 respectively. The raw materials required for the products are available in Maharashtra and Gujarat and consist of phosphorous, penta-sulphide, methanol, monochloroacetic acid, caustic soda, chlorine etc. The para nitrometacresol is imported from Japan. The machinery required for the production includes glass-lined equipment, stainless steel kettles, centrifugal pumps etc. These are purchased locally. The company has technical collaboration with Montedison, Italy, for dimethoate and with Sumitomo Chemical Co., Japan, for sumithion. It produces both for home consumption and for export. It has exported 5KL of Rogor 30E to Sri Lanka. The production capacity of 600 tonnes of dimethoate per annum is being expanded to 1,000 tonnes. It produces 100 tonnes of sumithion per annum.

The Bharat Fertiliser Industries Ltd. was established in 1959 at Majiwada near Thane. It was the first company of its kind in India. There are in all three plants of this type in the district. Though the working of the unit is not seasonal, it depends upon the demand for its products. The fuel consumed by it consists of furnace oil and

electric power. The raw materials required for production include rock phosphate and sulphuric acid, which are partly available in our country and partly imported from U.S.A. and Jordan. Rock phosphate is available in Rajasthan. Machines like cooler, hammer mill, sun mill etc., are required for producing the N.P.K. granulated fertilisers while Raymond grinding mill, mixer etc., are required for producing superphosphate. All the machines are available in our country.

Mixing, grinding, granulation, drying and cooling are the important steps in the process of production of N.P.K. granulated fertilisers while mixing rock phosphate with sulphuric acid and curing constitute the main steps in the formation of superphosphate. The prices of N.P.K. granulated fertilisers and superphosphate were Rs. 1,200 and Rs. 700 per ton, respectively. The production is entirely for home consumption. In 1975 about 64 persons were working in the factory.

MANUFACTURE OF PETROLEUM AND COAL PRODUCTS

It includes petroleum refineries, motor and aviation spirit, diesel oil, kerosene oil, fuel oil, diverse hydro-carbon oils and their blends including synthetic fuels, lubricating oils, manufacture of liquid paraffin, plasticisers, as also production of coal tar in coke ovens and manufacture of naphthalene. The first petro-chemical factory to be registered in this district was that in 1966. There were two factories in 1967, four in 1968 and five in 1969 and 1970.

The information regarding productive capital, employment, gross out-put, and value added by the industry in the district in 1966 is given below :—

(Rupees in thousands)				
Year (1)	Productive capital (2)	Employment (3)	Out-put (4)	Value added (5)
1966	.. 3,93,97 (2.49)	3,523 (5.19)	1,58,38 (0.87)	36,33 (0.69)

Note.—Figures in brackets are the percentages with respect to the corresponding district totals.

The following is the description of important petro-chemical industries in the district :—

National Organic Chemical Industries Ltd., NOCIL,* is the largest petro-chemical manufacturing company in the country. It was incorporated on 11th May 1961, with the Mafatlal Group as promoters.

* *Note.*—The account is based on the booklet published by the NOCIL.

Agreement for collaboration on the project was reached with the Royal Dutch/Shell Group in early 1964 when the present manufacturing programme was evolved. An industrial licence was obtained on 27th August 1964. The entire project is spread over an area of 290 acres.

This company is characterised by its horizontal and vertical integration. The design of all its plants is based on the latest technology. Few chemical complexes in the world have such advanced features of design and integration as have been applied in the NOCIL plant.

The heart of NOCIL's facilities is the Naphtha Cracker which produces the raw materials for manufacture of plastics and chemicals by other units in and outside the complex. The Naphtha Cracker, designed by Stone and Webster Engineering Corporation, and American Company with wide experience in this field, uses naphtha, a petroleum fraction, somewhat different but similar to petrol.

The products from the crackers are many but four main streams can be identified. The first stream produced is Ethylene, part of which is sold to Polyolefins Industries Ltd. (PIL). The Ethylene is converted into high density polyethylene, ethylene oxide. The latter is again converted into Ethylene glycols. The Ethylene is also used in the manufacture of Polyvinyl chloride (PVC). The second main stream is Propylene, which is mainly used internally in NOCIL. Propylene is converted with the aid of sulphuric acid into Isopropanol. This, in turn, is the base material for the manufacture of Acetone, from which Diacetone Alcohol is manufactured. In the last step, Methyl Isobutyl Ketone is produced from the Diacetone Alcohol. The third stream contains Butadiene, a raw material, that is used in the manufacture of synthetic rubber (SBR). The fourth and the last stream is used in the Aromatics unit as a source of high purity Benzene, obtained through a sophisticated extraction process.

In January 1968 naphtha feed was introduced into the cracker for the first time and in March 1968 the first ethylene deliveries to PIL took place. To support the operations in the NOCIL complex, many other services are required; steam has to be generated for use in turbines, driving pumps and compressors as well as for heating and process use; water has to be treated to very high standards of quality for steam boilers as well as for use in various manufacturing processes. Oxygen is required for the manufacture of Ethylene oxide and the biggest air separation plant in India has been constructed in the complex for this purpose. Besides the complex has got a large cooling water tower, a gas turbine generator of ten MW capacity, and a transformer station for electric power.

From 1967 onwards, the training of NOCIL employees continued and a permanent training centre was established inside the plant area,

in which pupils are being trained to become qualified plant operators. Outside the plant area, NOCIL established a technical training centre to train villagers in craftsmanship. The NOCIL housing colony provides accommodation to its employees. Besides, a scheme with a budget provision of Rs. 4.5 lakhs in collaboration with PIL and Standard Alkali for the socio-economic development of the surrounding villages, viz., Ghansoli, Gothivali and Talavali is being implemented.

By competing in international markets NOCIL has contributed to India's much-needed foreign exchange earnings. It exports chemicals as well as plastics. It has also commissioned facilities for bulk export of liquid chemicals. It has got well-organised marketing services within the country and over-seas as well.

The total capital cost of the project was Rs. 55 crores. The Sterling and Rupee loans were £ 11.9 million and Rs. 18.24 crores, respectively. The naphtha consumption capacity per annum is 2,25,000 metric tonnes. The total strength of employees is 1,050 including 748 workers employed in the plant and 302 workers in the head office and sales and distribution centres. The total sales value at full production is to the tune of Rs. 37 crores per annum and the total number of manufactured products available for sale are 28.

Polyolefins Industries Ltd. (PIL) is another important and the only of its kind integrated petro-chemical complex in the district. It is situated on a 50-hectare site in the industrial belt developed on the Thane-Belapur Road. The PIL was promoted in 1964 by the NOCIL in financial and technical collaboration with Farbwerke Hoechst A.G. (now Hoechst AG), West Germany. NOCIL and Hoechst each hold 33½ per cent of the equity capital of PIL, the balance being held by the Indian public.

The manufacturing activities of the company commenced in 1968 when there was a considerable amount of imported thermo-plastic in the Indian markets. The local demand was also negligible. The company had therefore to export its products. The exports were as follows :—

Year	Quantity (Metric tonnes)	F.O.B. value (Rs. in lakhs)
1968	... 2,814	60.77
1969	... 10,296	277.88
1970	... 4,727	133.01
1971	... 2,046	56.84

The company thus earned a total foreign exchange of Rs. 528.50 lakhs during the above period.

The most important product of the PIL plant is a thermo-plastic called High Density Polyethylene (HDPE). This company, a joint

ventures of Farbwerke Hoechst A.G. of West Germany and NOCIL, converts Ethylene into high density polyethylene. It is marketed under the trade name HOSTALEN. PIL also manufactures Ethyl Aluminium Sesqui Chloride and Ethyl Aluminium Mono Chloride known as Ziegler's catalysts and N-Butene-1 which are captively consumed. Part of the Hostalen production is converted at the plant into end-products such as barrels, jerrycans and pipes. When the PIL plant went into production in 1968, it was the first time that HDPE was produced in India.

Hostalen is a versatile thermo-plastic raw material. It has proved to be an excellent replacement for many end uses of ferrous and non-ferrous metals, jute and other natural fibres, paper, glass and the like. Hostalen has made a deeprooted impact on industrial and consumer packaging notably for products such as food, mineral oils, cosmetics, pharmaceuticals and chemicals. This has resulted in the import substitution of tin plate, paper etc., and the conservation of other scarce raw materials like steel and aluminium. In a survey conducted in 1971 the total import substitution due to the advent of Hostalen was placed at about Rs. 2 crores per year. Hostalen pipes have replaced galvanised iron, stainless steel and copper pipes. The development of Hostalen pipes has also opened up new possibilities for water-supply in hilly and intractable terrain as also for the disposal of hemical effluents. Woven bags made from Hostalen are now used for packing of fertilisers and chemicals which are naturally corrosive and hence cannot be packed economically in paper or jute bags. Since the introduction of Hostalen in the Indian market, nearly Rs. 15 crores have been employed in fixed capital by a number of processors in no less than 2,265 factories all over India. These in turn afford direct employment to over 40,000 men and women. PIL has also made a substantial contribution in terms of export earnings for the country. About Rs. 5.78 crores have been earned in foreign exchange through the export of Hostalen and products of Hostalen. PIL has an authorised capital of Rs. 10.00 crores, while the issued and subscribed capital is Rs. 7.2 crores. The total investment in plant and machinery is of the order of Rs. 13.85 crores. PIL has in employment about 850 persons at its plant and head office. It has plans to expand its capacity from 20,000 tonnes to 30,000 tonnes per year. The necessary steps to implement the expansion programme are already under way and it is expected to be completed in 1976. PIL has also started producing N-Butene-1 which is one of the important chemicals required in the manufacture of polyolefins. This raw material was so far imported into the country. Since it is now being manufactured indigenously by PIL, there will be a substantial saving of foreign exchange on this account as well.

LUBRIZOL

This is a newly-developed industry having a unique place in the economy of the State as also of the country. It works in close collaboration with the petroleum industry and petroleum product users to synthesize, manufacture and supply additives which are chemically adjusted to given base-oil stocks so as to meet specific end-use requirements.

It is a joint venture enterprise of the Government of India and the Lubrizol Corporation of U.S.A. The Lubrizol Corporation which was founded in 1928, is now recognised as an international leader in research, development, manufacture and marketing of chemical additives.

With the rapid growth and expansion of the petroleum industry in the early 60's and the consequential growth in demand for additives, the Government of India decided that these additives, considered as of critical and strategic importance to our economy, should be manufactured indigenously. With this objectives, the Government opened negotiations with the Lubrizol Corporation in July 1963. Subsequently, a formation agreement was signed between the Government and the Lubrizol Corporation in December 1965, to build in stages the necessary manufacturing facilities at the new Thane-Belapur industrial complex.

The first phase of the project which was commissioned in November 1968 provides for blending of 6,000 tons per annum of chemical intermediates. Since then the Lubrizol has made available approximately 20,000 tons of additives worth about 15 crores to the Indian petroleum industry. This manufacture has saved considerable foreign exchange to the country because of bulk imports, product rationalisation and reduction in quantities and types of inventories at the consumer plants.

The second phase of the company envisages complete indigenous manufacture of major intermediate chemical components. With a total approximate investment of Rs. 2 crores process units for manufacture of anti-oxidants, detergents, dispersants and pour-point depressants are expected to be progressively commissioned. This manufacturing facility is expected to save the country approximately Rs. 2 crores in foreign exchange, gradually rising further as petroleum product consumption grows in our country.

The chemical additives such as motor oil, gear oil, viscosity improvers, additives for industrial lubricants multi-functional gasoline additives, diesel smoke-suppressants, residual fuel oil improvers, rust and corrosion preventives are added to various petroleum products, fuels, lubricants etc., for improving their performance in their respective end-uses. These materials are added in proportions ranging from a few

parts per million to sometimes over 10 per cent either to impart new and desirable properties not originally present in the oil or to reinforce desirable properties already inherent to some degree in the oil.

The present level of innovation and sophistication in the design of internal combustion engines and various other forms of industrial machinery owes much the use of chemical additives. Under the Indian context, the use of additives assumes greater significance to the national economy as their optimum use can result in extending the life-cycle of the petroleum product as well as that of the machinery. This will considerably help in conserving India's limited resources.

Raw materials required for the production of additives are brought from NOCIL (Thane), Jogeshwari, Punjab, U.S.A. At present about 112 workers are employed in the company. Lubrizol has recently started exporting its products to Bangla Desh. The over-all turn-over of the company is valued at Rs. 13.8 crores. Its manufacturing capacity of blending and anti-oxidant is 8,000 and 7,000 metric tonnes respectively.

MANUFACTURE OF RUBBER, PLASTIC AND LEATHER PRODUCTS

This industry includes manufacture of tyres and tubes, foot-wear made primarily of vulcanized or moulded rubber and plastic, surgical and medical equipment made of rubber, rubber balloons, pipes, sheets, foam rubber mattresses, and plastic products.

The leather and leather products industry excluding foot-wear is still on a small scale. There was only one registered factory of this type in 1965 and the number could not increase beyond four in 1975.

The following statement gives total number of rubber and rubber products factories since 1961 :—

Year				Number of factories
1961	...	...	...	3
1962	...	...	...	3
1963	...	...	...	6
1964	...	...	...	6
1965	...	...	...	8
1966	...	...	...	8
1967	...	...	...	13
1968	...	...	...	14
1969	...	...	...	17
1970	...	...	...	18
1975	...	...	...	75

The following statement gives information regarding the productive capital, employment, out-put and value added by the manufacture of leather and rubber products in 1961 and 1966 :—

(Rupees in lakhs)					
Year	Productive capital	Employment	Output	Value added	
(1)	(2)	(3)	(4)	(5)	
1961	26,96 (0.60)	269 (1.01)	29,75 (0.61)	11,57 (0.85)	
1966	1,00,04 (6.63)	759 (1.12)	1,44,39 (0.79)	61,61 (1.17)	

The observations of the survey of this industry which was conducted in 1975 are given below. Information from seventeen factories was collected. The raw materials required by them consisted of natural rubber, resin scrap compound, synthetic rubber, P.V.C. compound, rubber chemicals, leather, micro-sheets etc. Raw materials required for rubber industries are generally obtained from Kerala, Bombay, U.K., Germany, Japan, U.S.A. and those for leather industries are brought from Madras, Gujarat etc.

Of the seventeen factories, seven were found exporting their products such as cycle tubes and tyres, rubber sheets and rods, rubber hose, pipes, carbon black etc., to East Africa, Indonesia, Burma, Dubai, England, Middle East, Tanzania, Kenya etc.

The following statement gives information regarding the total number of employees, capital investment and turn-over of the seventeen factories in 1975 :—

(Rupees in lakhs)					
Number of employees	Capital investment in				
	Land	Building	Machinery etc.	Others	Turnover
(1)	(2)	(3)	(4)	(5)	(6)
1,230	20.46	78.95	6,03.86	23.19	11,15.53

Information about a few important factories in this group in the district collected by this department in 1975 is given in the following pages :

CARBON BLACK INDUSTRY

The magic of carbon black is obvious in rubber and ink products. The rubber industry has developed voracious appetite for carbon blacks

* Note. — The account is based on the published material of the company.
Vf 4497—32

and consumes more than 94 per cent of the U.S. out-put. Non-toxic carbon black is also used in some of the foods we eat such as licorice and chocolate cookies. Blacks work their magic in phonograph records, plastics, explosives and rocket fuel, in paints and dyes and electronics. And because carbon black goes into mascara, it even puts a little more magic in the ladies' eyes.

Early man used carbon black in depicting his history on cave-walls. The ancient Chinese made carbon black for ink by collecting soot on porcelain dishes over an oil-flame. And in 1864, J. K. Wright, a Pennsylvania ink-maker, began the first U.S. production of carbon black. He suspended channel iron over jets of flame from natural gas and scrapped away the deposits of carbon black. This became known as the "Channel Process".

One might also remember the early white or red automobile tires with 3,000 kilometres of wear. But then a tire-manufacturer tried carbon black as a pigment in 1910. He not only got a black tire but an amazing unexpected benefit—an extraordinarily durable tire. This magical quality of carbon black to reinforce and give long-wearing properties to rubber still defies complete scientific explanation. But this discovery revolutionized tire-making and fostered the rapid growth of the carbon black industry. Now, of course, due to carbon black and modern tire-manufacturing methods, tires that last 60,000 kilometres or more are not at all uncommon.

The first commercial method of producing carbon black was the "Channel Process". Long rows of channel irons with impinging gas-fired flames collect black on their under-sides, which in turn is scrapped away to fall into conveyors. These old channel plants were not exactly appealing to civic pride and scenery and resembled a somewhat stationary black tornado on the horizon. Later on, the thermal and furnace processes were developed in 1920. In this process natural gas intermittently flows into a heated reaction chamber and decomposes into carbon black. As natural gas became a more valuable commodity oil replaced gas as the principal feed-stock for the furnace process in 1941. Now, the furnace process is by far the most important method of manufacturing carbon black accounting for 82 per cent of all production with thermal 12 per cent and channel 6 per cent. There are 27 different standard grades of furnace black available to-day. The furnace process combines the economy of the thermal process with the ability to produce blacks of a wide range of size and structure. The basis of this process is the continuous thermal decomposition of hydrocarbons (oil) in reactor.

The carbon black is manufactured in the district by the United Carbon India Ltd. Information about this industry is given in the following paragraph.

The United Carbon India Ltd., was established in 1964 in the Thane-Belapur industrial complex. It is the only industry of its kind in the district. Its working is spread throughout the year. Furnace oil is the main fuel consumed in the factory. For its products such as carbon black for tyre and rubber industries it requires carbon black feed-stock oils as raw materials. It is available locally from the refineries and petro-chemical companies. The machines required for the production include blowers, filters, pulverizers, drier conveyors etc., which are imported from western countries. Thermal cracking is the main process involved in the production of carbon black. Its production is for home consumption and for export as well. The company exported its products to Sri Lanka, Kenya, Bangla Desh etc. At present 144 workers are employed in the factory.

The Precision Rubber Industries Pvt. Ltd., established in 1971, is one of the important factories which produces synthetic rubber aprons and cots for textile mills. There are only two such factories in the district. Synthetic rubber is the only raw material required for the production. It is mainly imported from U. K. and West Germany. Rubber mixing mills, extruder and vulcaniser are the important machines which are required for producing the aprons and cots. It produces mainly for home consumption though about 10 per cent of its production is exported. About 300 workers are employed in the two factories in the district, of which ninety workers are employed in the Precision Rubber Industries Pvt. Ltd.

Besides aprons and cots, it also produces clearer-tubes, worsted rings and adhesives. Many textile mills, in their spinning department, experience difficulties such as lapping, eye-browning, ends-down and yarn irregularity. Such problems vary from mill to mill depending upon the fibre combinations, ring-frame, spinning speed, temperature, humidity and other working conditions. However, these problems can effectively be minimised by proper selection of roll-covers and aprons. G. B. 6040 quality apron with green drafting surface is specially treated to make it ozone-resistant. It has a blue-coloured tough inner-liner with high flexibility. It does not jam or buckle when following the contours of nose bars, nose plates and rollers. BLB 1040 quality apron is also equally good and is suitable for wool and synthetic fibres also. The company introduced for the first time in India the Knurled bore cots with 25 per cent higher grip to overcome slippage problems.

Caprihans (India) Ltd., established in 1969, is the only company of its kind which produces PVC Films and sheetings and PVC Rigid Foils. Most of the raw materials are locally available. However, certain dyes are imported from Europe. Mixer, Banbury, and Calender are the different types of machines required for the production. They are

imported from Italy. Furnace and diesel oils are the main fuels consumed for production. The production is for both home consumption and for export as well. The products are exported to U. K., Middle East, West Africa, West Indies and East Africa. About 301 workers are employed in the factory.

ELECTRONICS AND ELECTRICAL APPLIANCES INDUSTRY

The companies in this industry manufacture electric cables, electric motors, switch-gears, electrical fans, fluorescent tubes, electric lamps, vacuum cleaners, radio sets, television sets, telephones, telegraph equipment, electronic computers, generators etc. The following statement gives the total number of factories in this industry since 1961 :—

Year			Number of factories
1961	...	...	4
1962	...	...	4
1963	...	...	8
1964	...	...	13
1965	...	...	18
1966	...	...	25
1967	...	...	30
1968	...	...	29
1969	...	...	35
1970	...	...	36
1975	...	...	52

The statement below, on the other hand, gives the information about them as per the Annual Survey of Industries in the district in 1961* and 1966* :—

(Rupees in thousands)						
	Registered factories	Productive capital	Employment	Gross output	Value added	
1961	.. 4 (0·81)	33 (0·01)	68 (0·25)	1,77 (0·04)	1,44 (0·11)	
1966	.. 25 (3·47)	14,27,09 (4·04)	5,498 (8·09)	15,05,31 (8·25)	3,09,87 (5·88)	

* *Quarterly Bulletin of Economics and Statistics*, Volume VII, No. 4, January-March 1967, Bureau of Economics and Statistics, Government of Maharashtra, p. 41.

This is a very important industry as the availability of electrical machinery is the *prima-facie* necessity for the smooth running of most of the industries. The rate of growth of this industry is considerably high. The companies which are noteworthy are Bush India Ltd., Murphy India Ltd., Siemens India Ltd., Bharat Bijlee Ltd., Power Cables Pvt. Ltd., Tata Merlin and Gerin Ltd., Philips India Ltd., Devidayal Electric and Wires Ltd., Indian Rubber Regenerating Co. Ltd., Asian Cables Corporation Ltd., Asian Electronics Ltd., Lawkim Ltd., Bhangar Brothers and Co. Pvt. Ltd., Asha Brothers Pvt. Ltd., Electro Metal Industries, EMCO Transformers Ltd., and the Enamelled Wires Pvt. Ltd. Some of these companies have done pioneering work in the electronic and electrical appliances industry in India. A survey of some of them was conducted in 1975, the findings of which are given below :

The raw materials required by these factories include non-ferrous metals, copper, nickle, C. I. castings, brass, aluminium, chronic and boriz acids, ceramic rods, stainless steel, mild steel, electro-plated wire, copper and bronze sheets, transformers, insulators, filaments, insulating papers etc. Most of these materials are available at Bombay. The insulating papers are imported from U. K. The spare parts and machinery required for producing electronic products are imported from U.S.A., West Germany, Japan, Poland. Aluminium metal is also imported from U.K. and U.S.A.

Of the 26 factories from which information was collected, four were found exporting their products such as electroplating, polishing compositions, carbon film, resistors, transformers and rectifiers etc., to U.K., Thailand, Tanganika, Sri Lanka, Italy, Australia, Dubai, Iran etc.

The following statement gives the total number of employees, capital investment, and turn-over of the 26 companies in 1975 :—

Number of employeee	Capital investment				
	Land	Building	Machinery	Others	Turnover
(1)	(2)	(3)	(4)	(5)	(6)
1,359	13.02	76.61	1,13.69	26.60	9,69.35

Information about two important companies in this industry in the district is given below :—

Lawkim Ltd., electric motor industry, established in 1961, is the

oldest and the sole company of its kind in the district. It employed about 380 persons in 1975. It has a technical collaboration agreement with Messrs. Emerson Electric Co., St. Louis, U.S.A.

The working of the company is spread throughout the year. Electric power is consumed for production. The raw materials for production consist of electrical steel, stampings, copper wire, aluminium, paints, perchloroethylene, argon gas, insulation paper, fibre, mylar, terminals, and CRNGO steel. The last five items are imported from U.S.A., U.K., France, etc.

Surge tester and dynamo meter, steam blueing machine, ultrasonic cleaning machine, pressure die casting machine, and automatic coil assembly machine required for the production of stator/rotor for sealed compressors in different ratings, general purpose FHP and integral HP motors for agricultural pump sets are imported from western countries. The other machines which are locally available include XLO precision boring machine, capstan lathe R. 5-TOS, horizontal milling and universal grinding machines.

The industry so far was mainly engaged in the production of hermetic motors for the India Refrigeration/Air-conditioning Industry. It is however reported that due to considerable drop in sale of the hermetic motors as a result of power-cut and difficulties due to excise and taxation measures the industry is now engaged in a crash diversification programme into general purpose motors both for local market as well as for export.

Asian Electronics Ltd., is the sole factory in the district which produces resistors and capacitors. It was established in 1974. Most of the raw materials are locally available. A very small percentage of raw materials are imported from Europe. Furnace, winding machine, pyrolysis, slitting machine etc., required for the production have been imported from West Germany. About 25 per cent of the production is exported to West Germany and U.K. and the rest is for home consumption. About 450 workers are employed in the factory.

MANUFACTURE OF PAPER AND PAPER PRODUCTS AND PRINTING, PUBLISHING AND ALLIED INDUSTRIES

Manufacture of paper and paper products and printing, publishing and allied industries constitute a separate industrial group. It includes manufacture of pulp, paper, paper boards, packaging paper, paper bags, printing and publishing of newspapers, magazines, book-binding

etc. The following statement gives the total number of units in this industry since 1961 :—

Year	Number of factories	
	Paper and Paper products	Printing, publishing and allied industries
1961	3	2
1962	4	2
1963	5	3
1964	7	4
1965	9	5
1966	11	6
1967	12	8
1968	13	7
1969	16	7
1970	19	7
1975	33	8

The following statement gives information regarding productive capital, employment, gross out-put and value added by both the groups in 1966 :—

(Rupees in thousands)				
(1)	Productive capital (2)	Employment (3)	Gross output (4)	Value added (5)
Manufacture of pulp, paper and paper boards.	2,80,06 *(1·77)	1,355 (1·99)	4,17,88 (2·29)	1,01,48 (1·92)
Printing, publishing and allied industries.	10,99 (0·07)	216 (0·32)	16,41 (0·09)	5,69 (0·11)

*Note.—Figures in brackets are the percentages of the corresponding district totals.

The printing, publishing and allied industries included six printing presses and two publishers in 1975. The second sub-group in the same year consisted of eleven packaging concerns and twenty-two paper products industries. A survey of some of these industries in the district was conducted in 1975 and the following are the findings :

Raw materials required for producing paper included waste paper, bamboo pulp, wood pulp, alum resins, chemicals, colours, etc. Most of these were available at Bombay. Raw materials required for other paper products included board and craft papers, base paper, other solvent, spirit binding cloth, gum, ink etc. Some raw materials like glycerine, base paper, para formal, stencil tissue, N. C. lacquer etc.,

are imported from Finland, Japan, U.K., France, U.S.A., West Germany, etc. The factories produced wax paper, packing materials, card board, corrugated packings, paper boxes, decorative laminated sheets, stencil and marble papers etc.

Information about twenty-one factories was collected on different points. Of these, three were found exporting their products such as hessian to East Germany, decorative laminated sheets to Iran, Iraq, Sudan, and stencil paper and correcting fluid to Bangkok, Kuwait, Singapore, Eden, etc.

The following statement gives information about the twenty-one factories in 1975 :—

(Rupees in lakhs)					
Number of employees	Capital investment				Turnover
	Land	Building	Machinery etc.	Others	
(1)	(2)	(3)	(4)	(5)	(6)
1,138	49.98	1,16.63	2,34.42	15.44	9,91.71

The working of the paper-manufacturing units is spread throughout the year. The machines required for producing papers such as M. G. paper and others include paper machines, digester etc. The paper machines are imported from Italy while digesters are manufactured in our country. The tissue paper costs Rs. 6,000 per ton approximately. At present the export of paper is banned. The tissue paper is generally used for wrapping of crackers, glass products, *bidis*, fruits, jewelleryes and ornaments.

The process of manufacturing papers includes two stages, viz., pulp and paper manufacturing and the paper cutting in sheets. The pulp is made by cooking hessian waste, cotton waste, and cotton linter in digester machine. The cooked material is washed and beaten in bear machine. This is then conveyed to the hydro-pulper machine with waste paper cuttings which later on is turned into short fibres. The chemicals and dyes are then mixed with the raw materials and passed on through pipe line in refiner machine where it is completely beaten. The ready pulp is passed through a pipe in the stock chest machine from where it is passed through pumps in Johnson screen and centricleaner machine for cleaning. After cleaning, it is conveyed through head box to paper machine where it is spread over fourdrinier wire. Here, the paper web is dried on M. G. machine and rolled. In the second stage these rolls are put on cutter machine and are cut into various sizes.

SALT-MAKING*

Next to agriculture the making of salt is an important extractive industry of the district. By its very nature, the industry is concentrated in coastal areas of the district. There were about 200 salt-works in this area in the year 1880, with an estimated area of 8,100 acres, and an out-turn in 1880-81 of 1,71,000 tons of salt worth about Rs. 3,30,000 or including duty, about Rs. 95,60,000, and yielding a revenue of Rs. 78,00,000. The number of people employed in making and trading in salt was estimated at about 20,000. However, the statistical data then pertained to most of the places which have now been included either in Kulaba or Greater Bombay districts due to the changes in the administrative boundary of the district. The six customs divisions of Umbargaon, Vasai, Ghodbundar, Trombay, Panvel, and Uran among which the salt-works in Thane district were then distributed, Umbargaon is now included in Gujarat, Panvel and Uran have been transferred to Kulaba district and Trombay is included in Greater Bombay district. Thus only Vasai and Ghodbundar customs divisions are now in Thane district. The thirty-seven salt-works of Ghodbundar were then arranged in six groups with 22,923 pans, an area of 1,616 acres and 411 owners. These works were lying in the north-west of Salsette, on the south bank of the Vasai creek near Ghodbundar. The seventeen salt-works of Vasai were also arranged in six groups with 11,374 pans, an area of 1,439 acres and thirty owners. The Vasai works were widely scattered on the north bank of the Vasai creek; a few were in the interior on the banks of rivers. The Ghodbundar salt-works made 8,06,451 maunds of salt worth Rs. 63,500 in 1880-81, of which 6,07,450 maunds were sold at Rs. 15,35,938 while the Vasai salt-works made 6,20,001 maunds of salt worth Rs. 72,929 in the same year, of which 5,08,988 maunds were sold at Rs. 13,02,192.

Information regarding the salt-works (licensed units) in the district by the end of 1972 is given in the following statement :—

Name of circle	Name of factory	Number of salt-works in the factory	Total licensed acreage of the salt-works in the range		
			Acres	Gunthas	Annas
(1)	(2)	(3)	(4)		
Bhandup	.. Belapur ..	19	1,956	19	10
Bhayandar	.. Rai ..	48	3,465	18	5
	Vasai ..	32	4,914	3	12
	Palghar (A) }	14	3,216	36	12
	Palghar (B) }				
Total for Thane district ..		113	13,552	38	07

*The section is based on the information supplied by the Salt Commissioner for India, Jaipur.

Thus it can be seen that the total number of salt-works and the acreage under them have considerably been increased. In 1880-81 the two divisions, *viz.*, Ghodbundar and Vasai together had 54 salt-works with an area of 3,055 acres.

The large increase in the salt-works and acreage under them in the district is mostly due to the increased demand for salt on account of rapid industrialisation after Independence. The Government allowed freely opening of new salt-works to meet the increasing demand. The manufacture and storage of salt is allowed to be carried on under the Central Excise and Salt Act, 1944 and the Central Excise Rules, 1944.

Besides domestic consumption salt is used largely in several industries such as glass, leather, soap, oil purification, manufacture of dyes, textiles, ceramics, paper metallurgy, refrigeration, potteries and preservation of timber. It is also used for the manufacture of sodium compounds such as soda ash, caustic soda, sodium sulphate and sodium silicate. Thus common salt, chemically known as sodium chloride, is an extremely important chemical for the industrial advancement of a country.

Development of industry : As a result of the Civil Disobedience Movement started by the Indian National Congress under the leadership of Mahatma Gandhi, the then Government of India announced certain concessions under the Gandhi-Irwin Pact in 1931, as a result of which the Government of India then issued a press communique on 22nd May 1931 giving concessions to villagers to manufacture salt for domestic needs and sell in their respective villages. After Independence India was faced with a deficit in salt due to the transfer of salt-mines at Khewra to Pakistan. The Government, therefore, set up an inter-departmental committee under the chairmanship of Shri H. M. Patel, I.C.S., then Cabinet Secretary, to report on the measures to be taken to overcome the shortage of salt and to recommend steps for higher production and better methods of distribution. One of the measures suggested was to set up the production of salt by resorting to licensing new areas for salt manufacture freely and to liberalise the Gandhi-Irwin Pact. A press communique was issued on 23rd April 1948 according to which individuals or groups could freely produce salt in any land to which they had lawful access for this purpose and by whatever process they desired, *i.e.*, construction of pans and solar evaporation or boiling of brine or scraping or excavation of saline earth or natural formations of salt, provided that the total area of land of a salt-work set up by any individual or group was not more than ten acres. No licences were needed in such cases.

On the recommendations of the Patel Committee, the Government set up a Salt Expert Committee in 1948 to suggest methods to step up

production of salt and to improve its quality and to report on the necessity and usefulness of setting up model salt factories. As a result of the recommendations of this committee two model salt-farms were set up in the Thane division, one at Shiroda in Ratnagiri district and the other at Wadala (Antop Hill) in Greater Bombay district. The two Government salt-works at Shiroda had an area of $8\frac{1}{2}$ acres and were run as a model salt-farm (single unit) between 1953 and 1961. The Wadala model farm was worked as a salt-work having an area of 54 acres between 1950 and 1965.

Previously almost all the salt-works in Thane division were manufacturing Mapi variety of salt and a few of them were also manufacturing Kuppa variety. Mapi salt was very light containing a lot of impurities. It was in the form of blackish small crystals. Kuppa variety was flaky and comparatively purer and white in appearance. From the working of the two model salt-farms, it was made known to the private salt manufacturers that the purer, *kurkutch* variety of salt, which was a speciality of Saurashtra areas could be economically manufactured in the salt-works in Thane division too.

Process of salt-making : In Thane division, salt is manufactured from brine by solar evaporation. Salt-works are constructed on muddy or clayey plot of marshy land adjacent to a creek. Brine is taken into these salt-works through sluice gates at the time of high tide as the level of the plot is sufficiently low (one to three feet) and stored by closing the gates at the time of receding of the tide. The initial density of sea brine after monsoon is about $2\frac{1}{2}^{\circ}$ Be and 3° Be in the peak season. The reservoir in which brine is stored is locally known as *Khajan*. The water is allowed to flow through condensers known as *tapawans* and get concentrated by solar evaporation to about 24° Be and admitted into the crystallizers called *kundis*. Common salt is crystallized between 24° and 29° Be. The salt which settles down in the crystallizers is scrapped and taken to the embankment of the pans by means of wooden shovels and allowed to dry for two or three days and then lifted manually to storage platform. Bitterns (mother liquor), left after extraction of salt, is discharged into the sea creek. Fresh brine is again let into the crystallizers. Salt is removed from the pans periodically. At the end of the season, salt conical heaps are thatched with paddy grass for protection against the rains.

In order to get purer salt, the crystallizers must be fed with brine of 24° Be and the density in the crystallizing pans should not be allowed to rise above 29° Be. The important factor in the manufacture of good quality salt is a proper control over the concentration of brine in stages. For this purpose, the salt-works should be laid out in such a way that the reservoirs are at a higher level and the condensers are

slightly at lower level while the crystallizers are at the lowest level so that the brine flow from the reservoirs to condensers and from condensers to the crystallizers is by gravity only and no pumping is required for the transfer of the brine. However, where the levels are not uniform, pumping sets have to be installed at convenient places.

After the monsoon is over, cleaning and levelling of different compartments is undertaken. This work is done in October when the day is still damp. As soon as the repairs to embankments are completed and the reservoirs are ready, sea brine is taken in during the high tides (about four days in a fortnight) and stored. Different methods of manufacture of salt for the various varieties of salt are described below :

Kurkutch salt : For making this salt the ratio of area of crystallizers to that of reservoirs and condensers is about 1 : 7. The brine of 24° Be density is fed into the crystallizers and density of the brine is allowed to rise up to 29° Be only. Bitterns are drained out and fresh brine of 24° Be is charged into the crystallizers. This process is repeated till the crust of 2" to 3" is formed in the crystallizers. This method is called accretion or multiple irrigation system. At the time of extraction of salt $\frac{1}{2}$ " layer of salt in the crystallizers is left so that the muddy bed is not disturbed and the salt is not contaminated with mud. The salt crystallized out is raked regularly so that bigger crystals of salt are formed. In Thane division the rop is usually extracted after every two to three weeks. In order to get purer salt, the crop of salt before it is removed from the pan, is heaped in conical shape and washed with brine of 24° Be in the pan. The bitterns and the washings are drained out and the salt is transported to the platform during the rains when 5 to 10 per cent of salt is lost. However, this rain-wash improves the quality of salt as the soluble magnesium salts get washed out to a greater extent.

Vajni salt : This was also known as *mapi* variety of salt, the name being derived from the Marathi word "*map*" meaning measure. This quality consists of smaller, blackish crystals, brittle and lighter in weight. It is made in small-size pans. Brine of even 12° Be to 13° Be is let into the pans and the bitterns are not drained regularly. Raking too is less frequent. A crop is taken even every week. Now the sale of salt by measure has been banned. The quality of this variety of salt has considerably been improved. Although it is not of superior quality it is preferred in certain markets such as Hyderabad and Mysore.

Kuppa salt (Flake salt) : This salt is a speciality of Thane division and is mainly manufactured in and around Greater Bombay district. For this variety of salt, the pans of smaller size are used and low-density brine of about 15° Be to 16° Be is fed into the crystallizers.

This variety is white in colour and flaky in form. No raking is resorted to during its manufacture and movement of brine in the pans as the wind is restricted by tying grass-ropes horizontally as well as vertically inside the pans. The flakes coming out of the brine settle at the bottom and thus no crystal formation takes place. The crop is taken more frequently and is stored on the platform in conical heaps and thatched with paddy grass before the onset of monsoons as in the case of *kurkutch* salt. The loss of salt due to washing by rain is little higher in the case of *kuppa* and *vajni* varieties of salt than in the case of *kurkutch* salt.

Production of salt : The production of salt varies from year to year depending on the weather conditions such as the length of the manufacturing season available, temperatures prevailing during the season, presence or absence of any unseasonal rains, occurrence of storms, and unusually high tides. Taking into consideration only the actual area under salt manufacture, i.e., areas of reservoirs, condensers, crystallizers, the feeding and bittern channels etc., the average yield of salt per acre per annum varies from twenty to thirty tonnes. The following statement gives the figures of production and issues of salt in thousand tonnes in Maharashtra between 1965 and 1974 :—

Year	Production	Issues
1965	441	455
1966	470	448
1967	528	550
1968	449	469
1969	460	477
1970	428	440
1971	470	455
1972	581	513
1973	540.9	524.3
1974	382.4	439.1

Salt from Maharashtra is supplied to various States by rail, road and sea. Supply by rail is made to the various parts of Maharashtra State, Madhya Pradesh, Karnatak, Andhra Pradesh, Gujarat, Bihar, Assam, Orissa, West Bengal, Rajasthan etc. Road transport is usually restricted to the nearby places in the State, and at times salt is sent by sea to Mysore and Kerala States.

Collection of cess : The amount of cess collected from the salt-works in Maharashtra State during 1973-74 was Rs. 13,41,186.54.

Prices of salt: The cost of production of salt varies between Rs. 16 and Rs. 20 per tonne. Ex-factory prices of salt per quintal at the end of 1974 in Maharashtra State are given below :—

Place	Vajni	Kuppa	Kurkutch
	Rs.	Rs.	Rs.
Bhayandar Circle ..	6 to 8	7.75 to 8.50	7.50 to 10.50
Bhandup Circle ..	7.50 to 10.50	10 to 12	8.50 to 10.75
Uran Circle ..	6.15 to 9	6.15 to 7.25	5.50 to 7.25

Labour and wages: Labour employed in the salt industry is only seasonal as manufacture of salt has to be suspended during the monsoon. The industry employs maximum number of labourers generally in the month of May when the season is at its peak. During the monsoon most of the licensees do fishing, either themselves or by contract. Labourers, employed for repairs to salt-pans and salt manufacture, get an average wage of Rs. 110 per month, whereas the labour employed for weighment, filling bags, sewing and packing them and loading them in the country-crafts are paid about Rs. 125 per consignment of 22 tonnes. The average number of labourers employed by the salt industry in Maharashtra during the month of May 1974 for different types of jobs are shown below :—

Production		Sales		Miscellaneous		Total		Grand total
Men	Women	Men	Women	Men	Women	Men	Women	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6,404	874	1,523	250	786	75	8,713	1,199	9,912

In the interest of welfare of the labourers in the salt industry, Government have passed a number of Acts. Thus, the Factories Act, Workmen's Compensation Act, the Minimum Wages Act, Payment of Wages Act, Bonus Act etc., are now made applicable to the salt industry also.

Salt Advisory Boards: Cess recovered by the Salt Department is used for various purposes, connected directly or indirectly with the salt industry. For considering requests for assistance, the Government of India have constituted two boards, viz., the Regional Advisory Board for Salt and the Central Advisory Board for Salt. Apart from the official members of these boards, persons having knowledge and experience of public affairs, the representatives of the labourers and of the industry are appointed on these boards.

Although salt-manufacturing in Maharashtra is an age-old industry there is a vast scope for improvement in the quality of salt being

manufactured. A good quality salt has a market in foreign countries and apart from the non-availability of the facility of a suitable port nearby the salt-works, the poorer quality of salt is also responsible for salt from the State not gaining foreign markets.

There is also a very good scope for further expansion of the industry to meet the ever-increasing demand for salt and also to make good the imminent short-fall in the production due to the closure of some salt-works in the Belapur area in the jurisdiction of the CIDCO.

FISHERIES

Fisheries constitute an important extractive industry in Thane district. It is an important economic activity and a source of livelihood to a large number of people in the district. It is carried out in sea as well as in creeks and estuaries which have formed the western border of the district. Marine fishery predominates over inland fishery in the district and provides employment to about three-fourth of the persons engaged in the fishing industry. Fishing in sea is carried out along the coastal line stretching over about 110 kilometres or 15.71 per cent of the coastal line of the entire State. The important fishing centres in the district are : Dahanu, Popharan-Uchheli, Nawapur, Murabe, Satpati, Datiware, Arnala, Vasai and Uttan. The fishing activities are carried over nine months from September to May. During monsoons, fishing is carried out in creeks and estuaries. *Saranga* (white pomfret), *Halwa* (Black pomfret), *Darha*, *Dadha*, *Rawas*, *Ghol*, *Koth*, *Bombil* (Bombay duck), *Kolambi*, *Kolim* (*Karandi*), *Wam*, etc., are the commercially important varieties of fish available in large quantities. Besides the sea-fishing, inland or fresh water fishing is also an important activity in the district. The rivers, tanks and ponds are the chief sources of inland waters. The total length of perennial rivers in the district is about 400 kilometres. There are also about 220 tanks and ponds which provide about 8,000 acres of water-spread area.

The methods of fishing such as *kiv* and *malai* traps, intoxicating the fish with pounded *kinhai* bark or of *gehela* nut, or stupefying them by the juice of the milk bush, *Euphorbia tirucalli*, chopping the fish which gaze at the light at night, catching fish by the rod and hook, etc., are very old methods and prevailed in the last quarter of the nineteenth century and are followed even now mostly by the tribes and other backward people who look to it as an important means of supporting their day-to-day living.

Relevant extracts from the account of fishing industry given in the former edition of *Thana Gazetteer* are quoted below :—

“The nets are huge pointed bags, the meshes growing smaller and

smaller towards the closed end. The mouth is fastened to the stakes and kept open, the rest of the net being stretched out and the end made fast. North of Dantivra nets with ropes are used. The ropes are made of date leaf fibre bound with green palmyra leaf matting. Each net has four ropes, two on either side. The ropes are fixed by stones tied to them below, while buoys of light wood keep them at the surface. The upper jaws of the net are made fast to two of the ropes, one on each side, and on the other two the lower jaws of the net are slightly weighted and allowed to run down and open the net to its full extent. A large one measures 130 feet long, and is seventy feet broad at the mouth. It is formed of several parts called by different names and joined together." "Another net in common use is the *jal*, a long net eight or ten feet broad with very large meshes and floats of wood fastened all along one side. It is taken into twelve or fourteen feet of water, stretched to its full length and let go. As one side has and the other has not floats, the net is carried along perpendicularly and the fish swimming against the tide run into it. As the net floats along, the Kolis keep rowing from one end to another pulling it up bit by bit and picking out the fish. The *vavra* is a small *jal*, about four feet broad and often made of cotton. It has floats along one side and shells along the other, and the fish are generally frightened into it. The *mag* is a long net which is fastened perpendicularly to poles set along the shore. It is laid down at low tide with the lower end buried in the mud. At high tide it is pulled up like a wall, and, as it is above low water mark, the fish between it and the land are all caught when the tide has ebbed."

Boats: "The boats used in the coasting trade are the *Phatemar* and *padav*. The boats used for fishing are the *balyanv* which is smaller than either of the above and generally of about four tons (fifteen *khandis*), and the *hodi* which when small is called *shepel*. Both are built by native carpenters, the *balyanv* being made of teak and the *hodi* generally of mango or jack. The fishermen prepare their own sails and nets. The ropes are made of coir from Malabar and the sails of cotton cloth from the Bombay mills. The boat and nets are generally owned in shares. The captain, or *tandel*, gets two shares, the crew, or *chappris* one share each, and one is set apart for the owner of the boat. Nets are generally owned by each of the fishermen and are used by the boat's crew in turn, one being dried while another is set and others being dyed or repaired."

Fishing is now carried out in small sailing boats which number more than 1,500, some of them being mechanised and fitted with marine diesel engines. However, the fishing method adopted in the marine fish catch is the *dol* net fishing. Another important development in the

fishing industry is the progressive utilisation of synthetic fibre such as terylene, nylon, etc., effecting more efficiency in the gill net fishery and consequent rise in the production. These synthetic fibres of plastic and nylon are durable but costly. Government subsidy is therefore given for purchase of the same. Subsidy is also granted for purchase of diesel oil, hemp, and cotton twines and fish hooks. New methods such as trawling have also helped to increase the out-put especially in exploiting bottom fisheries.

In 1881 the fisheries and sailors included six classes with a strength of 27,093 souls or 3.53 per cent of the Hindu population of the district. Of these, 2,087 were Bhois, river-fisheries; 280 Kharvis, sailors; 3,051 Machhis, sea-fishers; 10,718 Mangelas; 2,957 Mitne Machhis; and about 8,000 other Kolis. In 1921 and 1931 the persons engaged in fishing and allied works were 18,106 and 7,028 respectively. In 1961 the total number of persons engaged in the fishing industry was 14,012. The variation in the number of fishermen in 1921, 1931 and 1961 can be ascribed to the changes in the methods of classification of population into different occupational groups at the time of Censuses. Most of them belonged to the communities known as Bhoi, Mangela, Vaity, Christian, and Son Koli. Some of them also carry out agricultural operations or in preparing new ropes, nets and sails. About 60,000 metric tonnes of fish worth approximately Rs. 2.10 crores are caught annually along the district coast. Most of the fish caught finds a ready market at Bombay. The fishing centres are connected with Bombay by road and rail. Fishing activity in the district was brought under the co-operative fold in 1937 when the first fisheries co-operative society was established at Satpati. In 1947 the number of such societies increased to four and in the following year there were as many as twelve fisheries co-operative societies. Two fisheries co-operative societies were organised in 1949 and one each in 1950 and 1951. Thus the total number of these societies increased to sixteen in 1951 and it remained the same till 30th June 1953. The following statement gives the total number of members and financial position of these societies as on 30th June 1953 :—

(1) Number of fisheries co-operative societies ...	16
(2) Number of members	8,456
(3) Share-capital	Rs. 1,59,245
(4) Reserve fund	Rs. 2,56,914
(5) Loans	Rs. 1,76,531
(6) Deposits	Rs. 75,702
(7) Working capital	Rs. 6,68,372
(8) Sales	Rs. 15,18,473

A central co-operative society was established at Bombay in 1948 for selling the produce and for supplying requisites such as hemp-twine, instruments and machinery required for mechanised fishing, boats, ice, etc., and also the necessities of life to their members. Now the co-operatives have expanded and covered the entire area of fishing in the district.

The Government, after Independence, took active interest in the development of fishing industry. The Government through the Directorate of Fisheries launched a programme for the development of fisheries including research and organisational aspects of the industry. A service station has been established at Satpati for repairs and maintenance of marine diesel engines fitted on fishing boats. Besides, fishing boats are also constructed at Satpati. A cold storage plant is established at Satpati. The persons engaged in the industry have been organised into co-operative societies. Financial assistance is granted to the fishermen and fishermen's co-operative societies also in the form of loan and subsidy for mechanisation of fishing crafts, purchase of fishery requisites, preservation and transportation of fish etc.

POWERLOOM INDUSTRY*

There are cotton as well as non-cotton powerlooms working in the district, majority of them being at Bhiwandi. The other centres are Thane and Kalyan.

For centuries Bhiwandi has been known for its handicrafts and industries. This aspect of the town's glory received further impetus with the settling of several Muslim families from Uttar Pradesh in the year 1857. In 1880 some Momin (Muslim weavers) families from Bengal migrated to Bhiwandi for permanent settlement. As early as 1860 the town was known as the centre for handloom multi-coloured sarees.

Modern industrialisation on scientific lines started with the turn of the current century. In the year 1914 was established the Dandekar Machine Works. Proprietor of the same started the electric supply company at Bhiwandi in 1923 which was handed over, in 1930, to the present Amalgamated Electric Supply Company.

The first powerloom in Bhiwandi was started in the beginning of 1930, when several textile mills in Bombay were closed due to the great depression in cloth market. This induced many handloom weavers to replace their handlooms by powerlooms. In 1936 there were about 1,658 powerlooms in Bhiwandi. By and large the growth of powerloom industry was slow in the beginning due to poor condition

* The section on powerloom industry is based on the information supplied by the Director of Handlooms, Powerlooms and Co-operative Textiles, Maharashtra State, Nagpur.

of handloom weavers. After 1949 the handloom weavers of Bhiwandi who had about 5,000 handlooms could not stand in the market which was fast changing. The deteriorating conditions of the handloom industry and the rapid industrialisation in the country compelled handloom weavers to replace their handlooms by powerlooms. In the year 1951 there were about 3,200 powerlooms working at Bhiwandi. In 1960, the number went up to about 16,500. After 1960 powerlooms grew at a very fast rate at Bhiwandi. Proximity to Bombay, the main all India market for raw material yarn, accessories, stores as also for cloth, offered special advantages to the powerlooms in Bhiwandi. The paucity of space and power-supply in Bombay gave a chance to Bhiwandi as the nearest possible centre for the expansion of powerlooms. Today Bhiwandi is the biggest centre of the small-scale powerloom industry not only in Maharashtra but the whole of India.

According to the statistics of Central Excise, the total number of authorised powerlooms (powerlooms having Tex-Mark) which manufacture cotton fabrics in the district was 43,403 in 1971. Besides, there were nearly 5,000 powerlooms which manufacture art silk and other non-cotton fabrics. There are also number of unauthorised powerlooms at Bhiwandi, the estimated number of which is 10,000. There are 241 powerlooms at Kalyan and about 500 powerlooms at Thane. Though the exact figures of employment in the powerloom industry are not available, the estimated number of workers in cotton powerlooms is about one lakh and that in non-cotton powerlooms is nearly 20,000.

The imposition of excise duty at compound rates on powerlooms in 1955 and changes made in it from time to time led to the fragmentation of bigger powerloom establishments into smaller ones. The excise duty rates were higher for establishments having larger number of looms, and establishments having less than five looms were totally exempted from purview of excise duty. Hence those powerloom-owners who had more than four looms got their establishments fragmented showing four or less number of looms in the names of family-members and other workers. Thus the small-scale powerloom industry of Bhiwandi is small in every possible sense as it is fragmented into units of four or less looms owned by individuals. Thus about 70 to 75 per cent of powerloom establishments in Bhiwandi consist of four or less looms. The remaining 25 per cent of the looms are owned by owners who have large factories having more than four powerlooms. In the case of silk and art silk powerlooms the tendency of fragmentation is not noticed because the excise duty imposed on art silk and silk powerlooms is collected at yarn and processing stage. Therefore the non-cotton powerlooms have a concentration in large units. The smallest factory has about ten looms.

The cotton powerlooms in Bhiwandi produce mulls, *dhotis*, gray sarees and long cloth. But major number of the looms are engaged on the production of mulls. These owners use fine and superfine counts of yarn. The art silk and non-cotton units produce viscose filament and other non-cotton yarn fabrics such as crepe, satin, taffetta etc., and nylon yarn fabrics (nylon satin, nylon shirting, nylon printed sarees, nylon georgette etc.). The non-cotton powerlooms also manufacture mixed varieties, i.e., nylon-staple and viscose-cotton are the most popular because of their cheapness, shining and appearance. Since superfine cotton fabrics have become costlier and beyond the reach of common man, the weavers in Bhiwandi are manufacturing cheaper varieties which have appearance of superfine cotton fabrics, by using filament viscose yarn in weft or *vice-versa*. The count of viscose filament yarn used is generally of 120 to 150 deniers. The count of nylon yarn used is 20, 32, 40, 2/32 and 2/80 deniers.

Working of powerlooms : The powerloom owners usually do not actually work the looms. Even in small establishments the owners employ labour weavers who are paid wages normally on the basis of picks per inch in the cloth woven. The owners look after other duties like arranging for raw material, marketing of cloth and general supervision. The wage-rate paid comes to about one *paisa* for six picks per yard in the cloth and varies as per prevailing market conditions. The weft pirns are wound on pirn winding machines which are normally owned by almost every powerloom unit. The pirn winding is done by boys aged twelve to fourteen years. They are paid 10 to 12 rupees per loom per month. Those who get pirn winding done in others' machines, have to pay more charges than the owners of such units.

Procurement of yarn and marketing of cloth : The powerlooms require cotton yarn of various counts and non-cotton yarn of various deniers. The yarn required for powerlooms is in the form of sized beams for cotton powerlooms and unsized beams for non-cotton powerlooms to be used as warp and cone yarn for weft. All types of yarn is procured by the powerloom weavers in the district mainly from the mills in Bombay and South India as well as from the yarn merchants at Bombay. There are also a number of *Pedhis* (small firms) which supply raw materials to the powerloom weavers, get cloth woven by paying wages. After procuring the yarn in required counts and deniers the cloth is woven on powerlooms by the powerloom weavers.

The silk and art silk manufacturers who have to invest a good deal of money compared to cotton powerloom cloth manufacturers buy their raw material (art silk and other non-cotton yarn) from Bombay market. The yarn is mostly supplied to them through the associations at fixed rates. The associations act as agents. These owners mostly buy

art silk and non-cotton yarn and sell the finished product on their own. The financial transaction takes place directly between the owners and the merchants through the agents. Their business goes on in the competitive atmosphere of the supply and demand. The profit or loss is dependent on the condition of the market but generally the product is sold at a marginal profit and the weavers are well-off.

The cotton manufacturers who constitute the vast majority of powerloom-owners are faced with an entirely different situation. The small owner of a four-loom unit cannot buy raw material and sell the finished product in the open market, because he does not possess the required working capital to purchase raw material from the open market. So also, due to meagre quantum of production in such small units the weaver cannot sell his product in the market in the processed stage. Therefore, he has no option but to sell his product at grey stage. Due to the paucity of capital at his disposal it becomes impossible for an average small owner to conduct his business independently and therefore, he has to work under master weaver. The master weaver is the financier who provides the raw material to the owner of the looms and takes back the cloth produced by the weavers for sale to the market. The powerloom-owner only gets weaving charges which are fixed by the master weaver as per the market conditions. The powerloom-owner has no say either in the type of cloth to be manufactured or has nothing to do with the price of raw materials and disposal of cloth. About 70 to 80 per cent of the cotton powerloom owners in Bhiwandi depend on the master weavers for their business. Out of the weaving charges paid by the master weaver to the powerloom-owner he pays nearly half the amount to the actual labour weavers and in the remaining half he has to meet other expenses, e.g., power and fuel, repairs and spare parts, taxes etc. The remaining amount constitutes his share.

On an average the labour weaver earns about Rs. 150 to Rs. 160 per month for ten to eleven hours of the work per day on two looms. The owner gets about Rs. 100 to Rs. 120 per loom per month.

According to the Minimum Wages Act which came into effect from October 1971 the minimum wages of cotton weaver in Bhiwandi have been fixed at Rs. 165 *plus* Rs. 36 as allowances for eight hours work. The minimum wages for silk weavers is Rs. 195 *plus* Rs. 36 as allowances for eight hours work, yet in some cases the workers continue to get less than what is recommended by the Minimum Wages Committee.

About 80 per cent of powerloom workers in Bhiwandi have come from Uttar Pradesh, Andhra Pradesh and parts of Maharashtra. The majority are illiterate and semi-literate people from U. P. who have

their families in the villages and have come to Bhiwandi in search of employment. Those who have migrated from U. P. are mostly Muslims (Momin weavers), and those from Andhra and other places are Hindus. Since labour weavers move from their native places to Bhiwandi and back, there is always a shortage of labour at Bhiwandi. Therefore getting a job as a worker is not a problem at Bhiwandi but getting housing accommodation is a problem to them. The unhygienic conditions in which the workers live and work affect their health.

Thousands of workers who have left their families behind at their native places depend for their food on labourers' kitchens. There are about 300 such kitchens which cater to the needs of about 30,000 workers. In addition to these, there are cheap food houses for poor labourers which cater to about 4,000 people.

SPINNING, WEAVING AND FINISHING OF TEXTILES

It is one of the most important industries in the district. It includes manufacture of (a) cotton textiles, (b) wool, silk and synthetic fibres, (c) jute, hemp and mesta textiles, and (d) textile products, and together numbered about 182 in 1975.

The textile industry in the district which comprised the spinning, weaving and finishing of textiles as per the annual survey of industries of 1961 had the highest number of registered factories, viz., 215 or 43.70 per cent of the total number of registered factories. It, however, stood third as it gave employment to 3,161 persons or 11.89 per cent of the total industrial employees in 1961. The productive capital of this group of industry in the same year was Rs. 1,27,36,000 or 2.83 per cent of the total productive capital of all the industries in the district, which then stood at Rs. 44,99,35,000. The gross out-put of this group of industries was Rs. 5,25,19,000 or 10.72 per cent of the total gross out-put of industries in the district which was Rs. 48,99,44,000 and the value added was Rs. 59,84,000 or 4.41 per cent of the total value added by all the industries in the district which then stood at Rs. 13,57,84,000.

The total number of factories declined from 215 in 1961 to 191 in 1966. However they together showed an increase in productive capital, employment, gross out-put, and value added. Thus the factories grouped under the spinning, weaving and finishing of textiles provided employment to 18,597 or 27.38 per cent of the total industrial employees in the district in 1966. Their productive capital in the same year was Rs. 40,94,90,000 or 25.94 per cent of the total productive capital which then stood at Rs. 1,57,84,38,000. The gross out-put and the value added by them amounted to Rs. 59,34,85,000 or 32.53 per cent and Rs. 21,55,45,000 or 40.88 per cent, respectively.

The statistics of number of factories, their capital, employment, gross out-put and value added by the factories in this industry in Thane district in 1966 are given below :—

(1)	Registered factories (2)	Productive capital (3)	Employment (4)	Gross output (5)	Value added (6)
		Rs.*		Rs.*	Rs.*
Thane district ..	191	40,94,90	18,597	59,34,85	21,55,45

* The figures are in thousand rupees.

MANUFACTURE OF TEXTILES NOT ELSEWHERE CLASSIFIED

The factories in this category numbered eight out of the total number of 492 in 1961. They provided employment to only twenty-five persons or 0.09 per cent of the total industrial employees. The productive capital, gross out-put, and the value added by these factories were Rs. 63,000, Rs. 1,36,000 and Rs. 27,000, respectively. Over a period of five years the total number of factories in this group increased only by two in 1966. However, the small increase of 25 per cent then created comparatively higher employment potential as these factories provided employment to 158 persons. The productive capital, gross out-put, and the value added by these units also showed an increase. Thus the productive capital increased from Rs. 63,000 in 1961 to Rs. 31,98,000 in 1966. The gross out-put and the value added in 1966 were Rs. 54,63,000 and Rs. 15,68,000, respectively.

The following statement gives the information about these factories in 1966 in Thane district :—

(1)	Registered factories (2)	Productive capital (3)	Employment (4)	Gross output (5)	Value added (6)
		Rs.*		Rs.*	Rs.*
Thane district ..	10	31,98	158	54,63	15,68

* The figures are in thousand rupees.

The industry group referred above includes large factories such as Raymond Woollen Mills Ltd., Modella Textile Industries Pvt. Ltd., Castle Mills, Century Spinning and Manufacturing Co. Ltd., Chemicals and Fibres of India Ltd., Woolman India Pvt. Ltd., Cravatex Ltd., Vishwa Bharati Spinning and Weaving Co-operative Society, Raymond's

Wool Combing Division, Hindustan Apparel Industries, New Shakti Dye Works Ltd., Ludhiana Woollen and Silk Mills, Steinmetz Garments Pvt Ltd., Ahmed Woollen Mills, Supper Spinners, etc.

The findings of the survey of these and such other factories which was conducted by the Gazetteers Department in 1975 are given in the following paragraphs. Information of thirty factories was collected. The following statement gives the total number of employees and the volume of investment and turn-over of these factories :—

Number of employees (1)	Investment in (Rs. in lakhs)				
	Land (2)	Building (3)	Machinery (4)	Others (5)	Turnover (6)
3,169	1,30.58	4,14.55	14,32.53	2,71.44	19,25.10

The raw material required by these factories included cotton yarn, art silk, Indian wool, rayon yarn, nylon, polyester yarn, viscose yarn, synthetic yarn, dye chemicals, bleaching chemicals, caustic soda, soda ash, starches, etc. Most of the raw materials are available in our country at different places such as Bombay, Bhiwandi, Rajasthan, Mysore, Assam, Madras, Madurai, Nagpur and Punjab, etc. Machinery spare parts for making ready-made garments of embellishment and trimmings are generally imported from West Germany, U.S.A. and Japan.

Of the thirty factories surveyed, eight exported their products. Nylon synthetic was exported to Middle East; ready-made garments to U.S.A., U.K. West Germany, Switzerland and Austria; embroidered fabrics to Middle East and South-East Asia; fabrics, garments and yarn to Singapore, Aden, West Indies, U.K., U.S.S.R., Sri Lanka; and cotton and art silk waste blankets to Nepal.

Information about the manufacture of cotton and art silk waste blankets and polyester fibre in the district is given below :

The production of cotton and art silk waste blankets is also an important industry. The heavy fabrics division of the Century Spinning and Manufacturing Co. Ltd. produces such blankets. It was established in 1965. The unit works throughout the year. The raw materials required for producing the blankets are locally available and consists of cotton yarn, cotton and rayon wastes. The machines required for the production of blankets consist of condenser cards and box frames, looms, and raising machines which are imported from Poland, England and West Germany. The blankets are mostly sold in the local market and are exported to Nepal. The price varies between Rs. 25 and Rs. 60 per piece.

The process of production in short is as follows :—

The cotton and rayon wastes are mixed homogenously and then dyed in various colours. It is then carded and yarn is spun for using in weft. The cotton warp yarn is taken from the mill to Worli (Bombay). The blanket cloth is woven at looms, raised on raising machine, cut in required sizes of blankets, stitched with satin border, brushed and packed in cases.

Chemicals and Fibres of India Ltd., incorporated in March 1961, commenced its production in 1965. The factory has a virtual monopoly in the production of chemical and man-made fibres such as 1·2 D, 1·5 and 2 D and 3 D, tops etc. It is established under foreign collaboration and there is no other factory producing these items in India. The products are mainly required by the textile mills. Its working is spread throughout the year. Di methyl terephthalate (DMT) and Mono ethylene glycol are the two important raw materials, required by the industry. Both of them are supplied by IPCL, Baroda and NOCIL, Thane, respectively. Autoclave, drawframe, cutter, balers etc. are the important machines required for the production. They are all indigenously available. DMT-Ethylene glycol, esterification, polymerisation, melt spinning, processing and polyester fibre are the important steps of the process of production. About 645 workers are employed in the factory. There is monetary collaboration of 55 per cent with the Imperial Chemical Industries (U.K.). The production is mainly for home consumption.

NON-METALLIC MINERAL PRODUCTS

The non-metallic mineral products including the manufacture of (1) structural clay products, (2) glass and glass products, and (3) pottery, china and earthenware constitute a separate industry. Its growth since 1961 can be seen from the following statement :—

Year	Number of factories		
1961	38
1962	36
1963	41
1964	40
1965	56
1966	62
1967	63
1968	57
1969	56
1970	62
1975	76

The following statement gives the statistics about this industry in the district in 1961 and 1966 :—

(Rupees in thousands)					
Year	Number of registered factories	Productive capital	Employment	Gross output	Value added
(1)	(2)	(3)	(4)	(5)	(6)
1961	.. 39 *(7·93)	43,49 (0·97)	28,34 (10·66)	73,41 (1·50)	34,98 (2·57)
1966	.. 24 (3·33)	2,00,58 (1·28)	17,27 (2·54)	1,56,35 (0·86)	34,09 (0·64)

Note.— *Figures in brackets are the percentages with respect to the corresponding district totals.

The important among the existing factories in this group in the district are : H. and R. Johnson (India) Ltd., Nitco Tiles Pvt. Ltd., Maharashtra Tiles and Marble Co. Pvt. Ltd., Wimco Tiles and Marble Industries, Kashmiri Ceramics Products Pvt. Ltd., Chatons Pvt. Ltd., Fibreglass Pikingsten Ltd., Crystal Glass Works Pvt. Ltd., Krishna Glass Pvt. Ltd., Shri Ambika Glass Works Pvt. Ltd.

MANUFACTURE OF FOOD PRODUCTS

This industry generally includes manufacture of (1) grain mill products, (2) bakery products, (3) cocoa, chocolate and sugar confectionery, and (4) miscellaneous food preparations. To this, the National Industrial classification of 1970 has added production of common salt; manufacture of ice; slaughtering, preparation and preservation of meat; manufacture of dairy products; canning and preservation of fruits and vegetables; canning, preserving and processing of fish etc. Of these, the important industries are dealt with in the following pages. The production of common salt has been exhaustively described under the category of indigenous industries. The following statement gives the total number of food products manufacturing units in Thane district since 1961 :—

Year	Number of factories		
1961	81
1962	78
1963	70
1964	71
1965	75
1966	72
1967	69
1968	55
1969	64
1970	65
1975	76

The statistics of productive capital, employment, gross out-put, and value added by the industry in 1961 and 1966 are given below :—

(Rupees in thousands)						
Year		Productive capital		Employment	Gross output	value added
(1)		(2)		(3)	(4)	(5)
1961	1,27,89	31,10	8,20,65	61,35
			*(2·84)	(11·69)	(16·75)	(4·52)
1966	1,16,51	24,49	8,09,16	55,52
			(0·71)	(3·59)	(4·43)	(1·04)

Note.—*(1) Figures in brackets are the percentages of the corresponding district totals.

(2) The figures of 1966 include soft drinks, carbonated water industries and tobacco manufactures.

The following statement gives the percentage shares of the industry in the district in respect of productive capital, employment, out-put, and value added in 1961 and 1966 in comparison with the other industrialised centres in Maharashtra :—

	Productive capital		Employment		Output		Value added	
	1961	1966	1961	1966	1961	1966	1961	1966
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Greater Bombay	54·02	74·48	35·19	42·92	52·95	63·37	57·84	71·33
Thane ..	8·30	3·40	14·19	10·91	7·69	4·43	7·14	4·06
Jalgaon ..	6·03	3·51	7·66	6·48	6·80	6·41	7·56	4·62
Dhule ..	4·07	1·98	5·16	4·84	3·44	2·61	3·22	1·79
Akola ..	4·78	3·84	6·41	4·89	6·90	4·71	4·24	4·84
Amravati ..	3·74	0·76	3·48	1·78	2·98	0·93	2·29	0·78
Nagpur ..	3·21	4·05	3·24	6·42	4·73	5·85	5·94	1·76

Note.—Figures denote the percentage shares of the manufacture of miscellaneous food preparations.

Raptakos, Brett and Co. Ltd., Pfizer Ltd., Cadbury Fry (India) Ltd., which produce modified milk food and high protein food are some of the well-known companies in the district.

MANUFACTURE OF WOOD AND WOODEN PRODUCTS, FURNITURE AND FIXTURES

It includes manufacture of (1) plywood and veneer, (2) wooden boxes, barrels, (3) bamboo and cane baskets, (4) bobbins, (5) industrial

fixtures, (6) cork and cork products etc. The following statement gives the total number of factories in the district since 1961 :—

Year	Number of factories	
	Wood and cork except furniture	Furniture and fixtures
1961	... 12	3
1962	... 11	3
1963	... 12	3
1964	... 14	3
1965	... 18	2
1966	... 17	3
1967	... 17	3
1968	... 18	3
1969	... 18	3
1970	... 15	3

The following statement gives information regarding productive capital, employment, gross out-put and value added by the industry in the district in 1961 and 1966 :—

(Rupees in thousands)				
Year	Productive capital	Employment	Gross output	Value added
(1)	(2)	(3)	(4)	(5)
1961	17,18 *(0.38)	3,88 (1.46)	47,58 (0.97)	12,97 (0.96)
1966	57,41 (0.36)	7,30 (1.07)	73,43 (0.40)	14,48 (0.27)

Note.—*Figures in brackets are the percentages of the corresponding district totals.

The Western India Match Co. Ltd. is the oldest and the only factory of its kind in the district. It was established in 1924. Its working is spread throughout the year. All the raw materials are indigenously available. Wood and splints are brought from Mysore and Kerala, cardboard from Gujarat and other raw material from Bombay. The chlorate and glue are produced by the company itself. Fuel oil and waste wood are consumed for production. The availability of timber from the neighbouring areas was one of the most important reasons for the localisation of the industry at Ambarnath in 1924. Conditions have changed substantially since then. The company has now to bring raw materials from different places as stated above.

The Swedish Match Co., Sweden, holds about 54 per cent of the equity shares of the company.

The total number of employees in the company is 1,492 excluding the temporary employees.

The important machines required for the production consist of unit processing machines like saws, peeling machines, box-making machines, box-closing machines, stick-making machines, box-filling, and labelling machines, frictioning and packing machines, and other equipment like dryer, polishing drums, sieves etc. Bulk of the original machines were imported but the latest additions are indigenously fabricated by the various firms.

The process of manufacturing the matches is as follows :—

Wood is peeled into a veneer from which outer boxes are made. The inner boxes are made from cardboard. The ready-made splints are first paraffined and dipped to produce a stick. The sticks are then filled into the boxes, boxes labelled, friction painted on their sides, dozen wrapped and packed finally in five gross containers.

The bulk of the production is mainly for home consumption in the States of Maharashtra, Gujarat, Rajasthan, parts of Madhya Pradesh and Mysore. However, matches of the value of Rs. 18.25 lakhs were exported to the Middle East countries in 1974. The wholesale prices of matches vary between Rs. 14 to Rs. 21 per gross.

KHADI AND VILLAGE INDUSTRIES

Khadi and village industries play an important role in providing employment opportunities and improving the standard of living of a small section of people in the district.

Besides providing employment opportunities in rural areas with small investment, especially to the weaker sections of the society, they create consumers goods by adopting simple techniques and using raw materials which are locally available. Such industries provide employment to the persons at the places nearer to their residence. Besides they enable to develop local initiative, co-operation and a spirit of self-reliance in the weaker sections.

The approach to the development of the village industries has undergone some modifications from Plan to Plan. In the First Plan, the development of *Khadi* and village industries was treated as a adjunct to the development of agriculture. In the Second Plan, however, an independent position was carved out for the development of these industries. In the Third Plan emphasis was given on the integration of village industries with the rural economy. In the Fourth Plan there

was a significant change in the basic approach towards the development of these industries. It removed the constraints on the adoption of improved technology and suggested adoption of intermediate technology on a wider scale so as to provide employment, to produce saleable articles and to create self-reliance among the people and building up a strong rural community spirit.

At the State level there is the Khadi and Village Industries Board. The Board has decentralised its activities since October 1976 and committees have been established at the district level. There is a Khadi and Village Industries Committee for Thane district. It consists of non-officials, officials from various departments like Industries, Co-operation, representatives from the District Central Co-operative Bank, lead bank etc.

The District Village Industries Officer works as a member-secretary of the Committee.

The Khadi and Village Industries Board has organised various industries such as processing of cereals and pulses, *ghani* oil, village leather, village pottery, carpentry and blacksmithy, cane and bamboo, soap-making, *gobar* (*methane*) gas and lime manufacturing in the district. All these industries excluding the processing of cereals and pulses, soap-making, *gobar* gas and lime manufacturing have been organised under the co-operative act.

The table Nos. 11 and 14 give details regarding financial assistance and employment provided by village industries both, under the co-operative sector and on individual basis in the district in the period ending with March 1976.

GLASS BANGLES

Tarapur is an important centre of bangle-making industry. It is famous not only in Maharashtra but also in other neighbouring States. The craft is in existence at Tarapur since generations as a cottage industry and it used to provide employment to about eight to nine persons per *bhatti*. It is very difficult to trace the history of the craft of glass bangle industry at Tarapur. The main raw materials, *i.e.*, sheet glass is not available at the village but has to be imported from Bombay. It is said that a Parsi gentleman was the pioneer in establishing this craft at Tarapur about a hundred years ago. He went to Firozabad in Uttar Pradesh and after acquainting himself with the technique of glass bangle manufacturing, returned to Tarapur and commenced its production.

At present there are two centres in Maharashtra where the manufacture of glass bangles is undertaken, *viz.*, Tarapur in Thane district and Talegaon in Pune district. This craft flourished a good deal

during the days of the First and Second World Wars. During 1938-39, it is learnt, there were about 35 *bhattis* (furnaces) in Tarapur which used to manufacture glass bangles. In those days, the craftsmen of Tarapur not only used to prepare bangles but such other items as pen-holders, paper weights, *surmeki-sali* (a thin glass rod used for inserting an eye lotion), sticks, etc., out of glass. After the First World War, the boom in the industry ceased and more and more factories which came into existence in 1914-1918 period were closed down because the home market was once again flooded with imported bangles.

A representation was made to the Government by the glass manufacturers requesting that protection may be extended to the glass industry in India. Accordingly a Tariff Board under the chairmanship of Dr. J. Matthai was constituted on 20th October 1931 and in its report it recommended that protection be given to glass bangle craft (besides other glass items). The recommendation was : "protective duties in respect of bangles, beads and pearls-50 per cent *ad valorem*." It says, "Bangles are at present subject to a revenue duty of 50 per cent *ad valorem*. The same duty is applicable also to beads and false pearls. If our recommendation to impose a protective duty of 50 per cent on bangles is accepted, we propose that the duty should be applied also to beads and false pearls."

The Second World War again gave a fillip to this industry since the imports from Japan, Austria, etc., were stopped. But the end of the war brought bad days to the craft at Tarapur though the one at Firozabad flourished. In December 1964, there were three *bhattis* (furnaces) engaging twenty workers only though in the beginning of the year 1962 there were four *bhattis* employing thirty-two workers. The reasons for the decline of the craft at Tarapur may be stated as :—

(a) Fall in demand for the bangles manufactured at Tarapur due to poor quality and lack of initiative and hesitancy to adopt new designs such as application of liquid gold, etc.

(b) Steady switch-over of workers in this craft to other activities.

(c) Inability to face the competition from the units manufacturing glass bangles of superior quality at other centres especially Firozabad in Uttar Pradesh and those producing bangles out of plastic, rubber, steel, etc.

A co-operative society called the Tarapur Bangdi Utpadak Sahakari Sangh Ltd. was established in 1960 with a view to assisting the workers and the employers engaged in manufacture of glass-bangles at Tarapur. The aim was to impart training to skilled workers of the craft in manufacturing bangles on modern machinery in place of traditional tools, etc. However, this attempt was not a success and the *bhatti* of the co-operative society was closed down in 1965.

The following statement shows the value of exports of glass-bangles from India to other countries for a few years. There has been practically no imports of glass-bangles into India since 1953-54 :—

Year				Exports (Rs.)
1958	...	...	...	4,76,228
1959	...	...	...	3,79,759
1961-62	...	...	...	2,45,913
1962-63	...	...	...	1,76,019
1963-64	...	...	...	1,11,795
1964-65	...	...	...	3,01,208

Craftsmen : The glass-bangle craft at Tarapur has since the beginning been monopolised by Muslims. All the workers and proprietors who own the *bhattis* are Muslims and are pursuing the craft since generations. In 1964, nineteen households of Tarapur were connected with this craft in one way or the other. From these nineteen households, 24 persons were working in the craft either as owners (employers) or as employees.

Of the three *bhattis*, two were working with a full complement of eight workers each, while the third one employed five persons only since it could not market its entire production.

The 21 employees who were working in this craft were paid on daily wage basis depending upon the daily out-put. The *Lom Banane-wala* has to prepare the molten glass sufficient for manufacturing 5,000 bangles a day in addition to the manufacture of coloured glass sticks. Similarly the *Jodnewala* has to prepare 2,500 bangles a day. The *Tar Khenchnewala* is engaged throughout the day. The work usually commences from 7 a.m. in the morning and lasts upto 4 p.m. with an interval of an hour or so for meals. There is no restriction either in respect of number of hours of work or timing as long as the daily out-put is ensured.

Of the nineteen households, sixteen or 84.21 per cent were wholly dependent upon this craft since the earners of these households were all engaged in this craft and they had no other source of income. In respect of two households they had some subsidiary occupation, though the principal one was the craft of bangle manufacture. It was only in respect of one household that the present craft was being pursued as a secondary occupation and some other work was the main source of income.

Of the nineteen households who were engaged in this craft, only six households belonged to the traditional craftsmen families. The rest of the households entered this craft during the Second World War when it was flourishing due to stoppage of imports from Europe and Japan due to hostilities. The present workers, however, were not inclined to

put their sons, etc., in this craft since the wages earned were too low. Secondly, there is no guarantee of continuity of the job in this craft since employment depends upon the work available at the *bhatti*. This craft does not give scope for employment of women. The employers, too, were unwilling to expand the business due to its non-profitable character. They had to face a stiff competition from the manufacturers of Firozabad. The *Lom Bananewala* gets Rs. 3.00 to Rs. 3.50 per day while the other two workers, viz., *Jodnewala* and *Tar Khenchnewala* get Rs. 2.00 to Rs. 2.25 and Rs. 1.75 to Rs. 2.00 per day respectively. The low level of wages is also one of the causes for the drifting away of workers engaged in this craft.

Raw materials: The main raw materials required in the manufacture of glass bangles at Tarapur are : (a) pieces of sheet glass of varied thickness and (b) pieces of coloured glass enamel.

The pieces of sheet glass are obtained generally from shops dealing in glass and glass wares at Bombay. The price of pieces of sheet glass in 1964 was Rs. 50 a maund of forty seers and the transport charges for one maund of sheet glass from Bombay to Tarapur were Re. 1. The pieces of sheet glass are clear and fully transparent.

The pieces of coloured glass enamel are procured from the traders at Firozabad in Uttar Pradesh. The following six colours are generally used at Tarapur and the prices of each variety in 1964 were as follows :—

Colour			Price per maund of 40 seers
			Rs.
1. White	...	...	50.00
2. Green	...	...	50.00
3. Red	...	...	80.90
4. Blue	...	...	50.00
5. Black	...	...	30 to 35.00
6. Yellow	...	...	50.00

Manufacturing Process: Before the workers manufacture glass-bangles, there is a process which is essential in the craft and that is the manufacture of coloured glass sticks which are used as colouring agents in the manufacture of glass-bangles. These coloured glass sticks are manufactured by mixing pieces of sheet glass and coloured glass enamel.

The various stages involved in manufacturing glass-bangles are as follows :—

- (i) moulding the glass pieces, (ii) preparation of the glass viscous,
- (iii) drawing the glass wire, (iv) cutting the glass wire, (v) shaping the bangles and (vi) finishing and packing.

At Tarapur the *Jodnewala* prepares about 2,500 bangles in a day.

In order to retain the shape of the *kalabut* the *jodnewala* every now and then dips it in an earthen pot containing a mixture of lime and water every 10 to fifteen minutes. Lime is available in nearby fields of Tarapur and hence no money has to be spent on it.

The prepared bangles are then counted and they are woven into a cord to make a garland. This garland is called *Mala*, *Katta* or *Toda* and contains 200, 250 or 300 bangles. These garlands are then wrapped in sheets of wrapping paper, tied and marked properly. They are then packed in wooden cases (usually tea-chests) with a padding of straw.

The designs in the bangles are obtained by placing the coloured glass sticks at different places on the glass sheet. Different designs can also be obtained by mixing more than one colour or by drawing thick or thin glass rod. The designs manufactured at Tarapur are : (1) *Genda*, (2) *Do Faki-Sadi*, (3) *Do Faki-Dudhiya*, (4) *Badrang*, (5) *Chadi*, (6) *Karkadiya*, (7) *Cha Kandi*, (8) *Glass Feta* and (9) *Gadheri Feta*.

An attempt was made in 1960 to bring together all the manufacturing units under a co-operative fold. The Tarapur Bangdi Utpadak Sahakari Sangh Ltd. was thus established and registered on 28th April 1960. The promoters of this co-operative venture were the traditional craftsmen at Tarapur. It had 56 share-holders who purchased the shares valued at Rs. 2,100. The Government of Maharashtra had also helped the society to the tune of Rs. 2,000. Almost all the share-holders are Muslims of the village. The Thana District Central Co-operative Bank had granted credit worth Rs. 5,000 on 1st March 1961 and an amount of Rs. 1,000 as subsidy to the society on 25th January 1962.

The society operated one *bhatti* and employed ten persons. In the nature of things the capital investment of the society was not much as the equipment is quite cheap.

The production and sale of glass-bangles by the society during 1963-64 were of the order of Rs. 5,535 and Rs. 3,643, respectively.

The society could not expand the business. It tried to import modern machinery and technicians from Firozabad in Uttar Pradesh so as to impart training to the local craftsmen but the experiment proved a failure in 1964. It spent Rs. 3,672 in 1964 on machinery. But this expensive venture was beyond its means and it had to close down its old *bhatti* in 1965, and since then the society is not functioning at all.

Besides the co-operative society, the number of independent proprietors is too small. They own two *bhattis* only and give employment to fourteen persons. These owners work as proprietary concerns and because of paucity of funds and finance they had to rely on old tools and implements. These two establishments are not covered either

by Factories Act, 1948, or Shops and Establishments Act, 1950, since the number of workers at each establishment is less than ten.

The main problems which face an owner-proprietor of small establishments are of finance and marketing of finished goods. Though the necessary fixed capital investment is not big, the financial requirements for keeping the business going is beyond the means of individuals in the craft.

Economic aspects : The cost of production of bangles includes cost of raw material, labour charges, depreciation of tools and implements, interest on loans, rent of land and buildings while the loss incurred by way of breakages is also to be taken into account. An attempt is made below to give cost of production of 9,000 glass-bangles of *Do Faki* design :—

Name of item	Quantity	Value
		Rs.
(A) Raw material and fuel—		
(i) Sheet glass and coloured glass sticks	One maund and 1·16 seers	7·50
(ii) Firewood	3·6 maunds	7·50
	Total	15·00
(B) Wages—		
(i) 1 <i>Lom Bananewala</i>	2 man days	7·00
(ii) 2 <i>Jodnewale</i>	4 man days	8·00
(iii) 1 <i>Tar Khenchnewala</i>	2 man days	3·46
	Total	18·46
Miscellaneous charges, e.g., packing the material, breaking, etc.		2·29
	Grand Total	35·75

These bangles are sold by the producers, it is reported, for Rs. 40·50 at the rate of Rs. 4·50 per 1,000.

The total value of production of glass-bangles at Tarapur in the year 1963-64 was estimated at Rs. 15,322.

The total expenditure on raw materials and fuel during the year was Rs. 6,810 and the total wages paid amounted to Rs. 7,472.

Marketing : The glass-bangles of Tarapur are sold to wholesale as also retail merchants. It is, however, the manufacturers of glass-bangles at Firozabad who purchase, in bulk, the glass-bangles of Tarapur and after some processing they sell them in the market. The goods are sent by railway parcel.

The craft of glass-bangles at Tarapur has lost its original importance and slowly it is losing ground. The prospects of its revival appear to be very poor.

The craftsmen at Tarapur need specialised training in the application of liquid gold on bangles, manufacturing glass-bangles on modern machinery and evolving new designs.

The waste matter of this craft is not utilised by the craftsmen to manufacture any other item of glass such as paper weights, glass toys, etc. which if utilised in by-products would reduce the cost of production. The waste is reported to be used by some manufacturing units elsewhere to produce glass goods like paper weights, pebbles, beads, etc.

The producers of glass-bangles at Tarapur have to face the tough competition offered by manufacturers at Firozabad as also of bangles made out of rubber, plastic and metal. These factors have also contributed to the decline of the craft.

OTHER INDIGENOUS INDUSTRIES

Among the indigenous industries which existed prior to Twentieth Century in the district mention may be made of *gul*-making, plantain-drying, comb-making, wood-carving, paper-making, fibre-making and the industries under the management of the Superintendent of the Thane Jail. Most of these industries, however, suffered set-backs on account of competition from mechanised industries. What follows is a brief narration of these industries in the district :—

Gul-making : Raw sugar (*gul*) was chiefly made in the Vasai areas by Pachkalshis, Malis, Native Christians and Samvedi Brahmans, the season of sugar-making being from February to June. The tools and equipment included sickle, *ghani* consisting of two or more rollers, earthen pot for storing juice, boiling pans, five scumming sieves, five stirring ladles, earthen pots and a few rods for stirring juice. After boiling the juice, it was poured into a set of earthen pots or into a bamboo basket lined with a thick layer of dried plantain leaves, stirred with a wooden rod and left to cool. *Gul* was sold to local and Marwar Vanis, the price being Rs. 30 to Rs. 40 for a *khandi* of 25 maunds (700 lbs).

The cultivation of sugar-cane on large-scale in the neighbourhood of Vasai in 1830 and 1852 led to a proposal for opening of a sugar factory in Vasai. In 1829 the Government gave a forty years rent-free lease of about eighty-three acres of land on the esplanade of Vasai fort and also Rs. 23,000 to one individual growing Mauritius sugar-cane and starting a sugar factory. The project, however, did not materialise. Some efforts in this direction were made subsequently also,

but they were not successful. The growth of sugar-cane on large-scale and an establishment of sugar factory at Vasai is still a project to be implemented and would wholly depend upon technological development and fresh vigorous efforts.

Plantain-drying : Plantain-drying is a small indigenous industry in the district which still exists in the villages in the neighbourhood of Vasai. It is done by families belonging to Samvedi Brahmans, Pachkalshis and native Christians. This household industry is concentrated in Agashi, Kopharad, Vatar, Bolinj, Gas, Sopara and Umarale, all in Vasai taluka. However, plantain-drying in the district is mainly known after the village Agashi as *sukeli* of Agashi.

The *rajeli* variety of plantains are used for drying. When the fruit is ripe, the bunch is taken from the tree and put into a blanket filled with rice-straw. The basket is covered for six or seven days to produce heat, and then the plantains are taken out, peeled, and spread on a booth close to the sea-shore. After lying all day in the sun, they are gathered in a heap in the evening, and left all night covered with dry-plantain leaves and a mat, the heap being each time smeared with clarified butter. This is repeated for seven days when the dried fruit is ready.

The plantain-driers are gardeners who grow the fruit and need no help from any other craftsmen. During their busy season which last from October to January, they keep no holidays. The dried plantains are either sold to local dealer or are sent to the weekly markets held in neighbouring villages and to Bombay. The selling price is Rs. 10 per kilogram.

Besides drying ripe plantains, the gardeners dry slices of unripe plantains. The *bankeli*, a variety of plantain grown in the district, is locally esteemed as a nourishing food for the sick and for women after child-birth. The fruit is dried in the sun, powdered into meal, and sifted.

Comb-making : The making of ornamental black-wood combs was also another household industry at the end of the Nineteenth Century. About half a dozen families of Konkani Musalmans in Bhiwandi and three or four families in Kalyan were dependent on this industry. The combs were sold to local stationers and hawkers at $2\frac{1}{2}$ annas to 4 annas a dozen. In subsequent years the craft suffered from the competition of English horn-combs. Now-a-days rubber and plastic combs are more popular.

Wood-carving : Wood-carving is another craft which is still in existence in the village Mulgaon about a mile north of Vasai. A street in this village is called as Sutar street after the carpenters. The wood-carvers are said to have been brought from Mungi Paithan in the

Deccan to Vasai by the Portuguese when they were re-building the Vasai fort in 1597. The Portuguese probably employed them in ornamenting their churches and other religious buildings, some of which are said to have been noted for their beautiful carved wood work. Under the Marathas the chief articles they made were *devharas* or carved shrines for household gods and *kalandans* or pen and ink stands. These were generally made of black-wood, most of which came from Jawhar.

Paper-making : In 1877, a paper-mill was started at Sassu Navghar, about six miles east of Vasai. The cost of the buildings with fixings and English machinery, and of a dam built across the neighbouring stream, was Rs. 80,000. There was an abundant supply of material for paper-making among which included dry stalks of sugar-cane, plantain stems, bamboos, and some wild shrubs and grasses. Of the raw materials suitable for paper-making, the chief were : *Saccharum spontaneum*, a coarse grass, which grows freely in low marshy lands and yields a substance useful with Esparto grass ; *bowri* or *mudra*, *Abutilon indicum*, commonly found in hedges ; *madar* or *rui*, *Calotropis gigantea*, a very common shrub yielding a large proportion of fibre ; *utran*, *Daemia extensa*, a common creeper ; the screw pine, *kevada*, which grows close to the sea and is covered with fibrous leaves ; *Girardinia heterophylla*, which grows on the Sahyadri slopes ; *kalnar* or *ghaymari*. Besides these, the straw of rice, *nachani*, and *vari*, can also be used in the paper mills with rags, rotten ropes and gunny bags. The material required for paper-making is available in the district. Paper was made from grass and rice straw, but none was ever sold. The paper-mill, however, became defunct in 1880.

JAIL INDUSTRIES

The long-term prisoners in Thane Central Prison are provided with creative work including handicrafts and industries. The chief of these industries include textile, carpentry and tailoring. The chairs, sofa-sets, dressing tables, and beds manufactured in the jail are in great demand. The carpets, blankets and other textile products have still a good name for strength and finish. Most of the products are supplied to various Government departments.

The tailoring unit in the jail supplies ready-made garments to the Posts and Telegraph Department and to the Police. It also imparts training to the prisoners. It is a training-*cum*-production centre. At present, about twenty prisoners are working in this unit, the annual turn-over of which amounts to about rupees three lakhs.

Cotton cloth and carpets : Weaving is the chief industry in the jail. There are at present fourteen looms for manufacturing carpets, blankets

etc. The yarn is purchased from the C.S.P.O. and Industries Department. The dyeing section dyes fast as well as direct colours required for these varieties. The grey as well as dyed yarn is further processed for preparing warp as per the pattern and weft is also supplied. The pit-loom is operated by the prisoners.

Carpet and punja carpets : Carpets are woven on pit-loom and are called loom carpets. The other carpets, viz., *punja* carpets are manufactured either on horizontal or vertical type of arrangement wherein warp is spread on floor and kept in a tightened condition. On the other side it is tied to the pegs struck in floor. The workers or prisoners move on horizontally as the weaving process goes on, thus completing the carpet. Since these carpets are very thick and the warp yarn is not actually seen in the carpet owing to picks struck at home by way of *punja* like apparatus, the final product is called *punja* carpet. The carpet lasts about fifty years. It is in great demand both from Government and the public.

The working of *punja* carpet is done as a group-job and each prisoner has to mind a certain width, which he can conveniently manage. This is a very popular variety of carpet and there is a great demand for the same.

Carpentry : This section is worked on job basis. A group of two or three prisoners do the planing and assembling job. This group works at one table and there are twenty-one such tables. Of these, twelve are working and nine are unserviceable. This section including caning and polishing provides job for about sixty persons.

INDUSTRIAL ESTATES

The Maharashtra Industrial Development Corporation is an undertaking of the Government of Maharashtra established under the Maharashtra Industrial Development Act, 1961 (III of 1962) on the 1st August 1962. It is an autonomous statutory corporation and its twin objectives are : (1) to set-up well-planned industrial areas in and around Bombay to prevent the haphazard growth of industries and to regulate their development in a planned manner and (2) to develop industrial areas away from Bombay by providing suitable incentives to achieve a gradual decentralisation of industries and development of the under-developed parts of the State.

The Corporation, popularly known as M.I.D.C., acquires land and prepares lay-out plans for industrial estates at suitable sites. In the initial stages it provides the bare minimum infrastructure to industries by providing roads, provision of water-supply, storm water drains and under-ground drainage. The Maharashtra State Electricity Board is

approached to supply electricity. The development of the area is carried out in phases according to the size of the area and demand for plots in the area. It also constructs industrial sheds at suitable sites.

In each of the industrial areas, sufficient provision is made in the lay-out for first-aid, hospitals, police stations, fire stations, post and telegraph offices, telephone exchanges, restaurants, public buildings, parks and gardens etc. In most of the industrial areas considerable part of the area has also been reserved for residential use for labour housing as well as for management housing.

Generally, plots are given on 95/99 years premium leases. The prices of the plots in different industrial areas are revised annually having regard to the progress of development expenditure and the market conditions. In the developed areas plots are allotted on payment of occupancy price fixed annually. In the under-developed regions plots are allotted as an incentive to industries on concessional terms of rent, viz., no rent for the first two years, half of the economic rent for the next three years and full economic rent from the sixth year onwards.

The sheds are also allotted on payment of rent or on hire-purchase basis.

The industrial estates are broadly classified into two types : Those meant for engineering and other industries and those meant for chemical industries. In the chemical industrial areas, special facilities are available for the disposal of effluent. In the engineering industrial areas, the Corporation normally publishes a list of objectionable industries which are not allowed to be set up in the said areas.

The corporation has established industrial estates at Thane, Mira, Dombivli. Trans-Thane Creek including Kalwa, Ambarnath, Badlapur in Thane district. The corporation has also taken up the work of development of a functional estate, viz., the Automobile Ancillary Industries at Dombivli on an agency basis. The entire expenditure on the development of the functional estate is borne by the State Government. The factories in the industrial estates solve their problems regarding finance, raw materials, marketing of finished products etc. individually. The Corporation has, however, extended the field of its activities to the encouragement and guidance to the prospective industrialists. The Maharashtra Investment Centre, a division of the Corporation, is playing a very effective role in stimulating interest in the industrial development of the State by furthering contacts between Industry and Government, between industries themselves and the local and foreign entrepreneurs.

A brief description of each of the industrial estate in the district is given below :

Thane Industrial Area : It is popularly known as Wagle Estate. This was the first industrial area which the Corporation took up for

development in June 1961. It is just outside the limits of Bombay Municipal Corporation area.

This industrial estate stretches north-west straddling the Tansa pipelines upto the hills. The land slopes gently towards the Bombay-Agra road and is fairly plain with good foundation conditions. The estate at present is spread over an area of about 275 hectares. Water-supply is available from the Tansa-Vaitarna mains passing through the area. Power is also made available from the transmission lines which pass through this area. All other facilities which have been described earlier have been made available in the estate. This estate is ideally suited for engineering industries.

There were about 503 factories in production and about 97 factories under construction by the end of March 1976. The industry-wise classification of the factories which have gone in production is as follows :—

Particulars	Number of factories
(1) Engineering ...	334
(2) Chemical ...	44
(3) Rubber, plastic and leather products ...	48
(4) Processing of cotton, synthetic fibre, silk etc. ...	21
(5) Sea-food ...	2
(6) Paper and paper products ...	15
(7) Glass works ...	5
(8) Ready-made garments ...	7
(9) Cold storage ...	5
(10) Printing press ...	5
(11) Wood ...	6
(12) Tiles and marbles ...	7
(13) Power laundry ...	1
(14) Embroidery ...	1
(15) Miscellaneous ...	2
Total ...	503

The fixed capital investment and the annual turn-over of the factories in production were Rs. 3,897.61 lakhs and Rs. 10,965.96 lakhs, respectively by the end of March 1976. The factories provided employment to 21,377 persons during the said period.

Trans-Thane Creek (including Kalwa) Industrial Area : This area comprises about 2,562.64 hectares of land situated between the Thane-Belapur road and the Parsik range of hills. The Trans-Thane Creek

Industrial Area was established in August 1963 and the Kalwa Industrial Area was established in February 1964. The strip of land is about twenty kilometres along the Thane-Belapur road. The land slopes gently from the Parsik hills towards the creek and has got very good foundation conditions. At the northern tip of the Trans-Thane Creek Industrial Area is situated the Kalwa Industrial Area which alone comprises an area of about 493.27 hectares. The Thane-Kalwa road forks out from the Bombay-Pune National Highway and proceeds through Kalwa to Belapur. Kalwa on the Central Railway is the nearest railway station to this industrial complex. Many major industries like National Machinery Manufacturers' Association, Indian Aluminium, Mukund Iron and Steel Works are located in this area. Land is also allotted by the Corporation to many large industries such as Messrs. Siemens Engineering and Manufacturing Co. Ltd., Messrs. Philips India Ltd., Messrs. Poysha Industries Ltd., Messrs. Welding Electrodes and Metallic Alloys Pvt. Ltd., Messrs. Vallabh Textile Mills Ltd., etc.

The Trans-Thane Creek Industrial Area is reserved particularly for large-scale petro-chemical industries from naptha which is a by-product of the refineries located in the Trombay area. Besides, this area has a natural facility for the discharge of chemical effluent from the petro-chemical factories.

In this petro-chemical complex the industries like Messrs. Chemicals and Fibres of India Ltd., Messrs. United Carbons, Messrs. Polyolefins Ltd., Standard Mills Ltd., National Organic Chemicals Industries Ltd., Pfizer, Herdillia, PIL, Lubrizol, etc., are worth mentioning.

There were about 137 factories in production and about 54 factories under construction in the Trans-Thane Creek (including Kalwa) Industrial Area by the end of March 1976. The fixed capital investment and the annual turn-over of the factories in production for the said period were Rs. 1,53,50.87 lakhs and Rs. 2,97,28.62 lakhs, respectively. The factories provided an employment to over 17,162 persons.

The entire industrial complex is connected with Bombay by road as the State Government has constructed a bridge over the Thane Creek. The Shil-Mahape road which has been constructed through the Parsik range of hills has also connected the industrial area with the Bombay-Pune road near Shil.

The industry-wise classification of factories which have gone in production in both the industrial areas is as follows :—

Particulars		Number of factories
(1) Chemical	...	78
(2) Engineering	...	34
(3) Paper and paper products	...	4
(4) Match box	...	1

Particulars		Number of factories
(5) Oxygen	...	1
(6) Cold storage	...	3
(7) Wooden	...	2
(8) Printing press	...	1
(9) Tiles	...	1
(10) Spinning and weaving	...	3
(11) Food products	...	1
(12) Embroidery works	...	1
(13) Glass works	...	1
(14) Flour mills	...	3
(15) Plastic pipes	...	1
(16) Surgical cotton	...	1
(17) Miscellaneous	...	1
Total		137

Dombivali Industrial Area : This industrial estate is spread over an area of about 211.62 hectares. It is situated on the Shil-Kalyan road which branches off from the Bombay-Pune road. Dombivali and Kalyan railway stations on the Central Railway are about three kilometres away from this area. The industrial area was established in October 1963. It has got good foundation conditions. The area is suitable both for engineering and chemical industries. Almost all the facilities including a net-work of roads, pipe-lines, supply of water and electric power etc. have been provided in the area.

The Premier Automobiles factory is situated adjacent to this area. A functional estate for automobile ancillary industries has also been taken up in this area.

The industry-wise classification of factories which have gone in production is given below :—

Particulars		Number of factories
(1) Chemical	...	84
(2) Engineering	...	90
(3) Textile processing	...	3
(4) Tiles and marbles	...	6
(5) Plastic products	...	3
(6) Rubber products	...	5
(7) Paper and paper products	...	5
(8) Miscellaneous	...	21
Total		217

There were 217 factories in production and 22 under construction by the end of March 1976. The fixed capital investment and the annual turnover of these factories were Rs. 1419.36 lakhs and Rs. 3278.54 lakhs, respectively by the end of March 1976. The workers employed in these factories were about 7,507.

Ambarnath Industrial Area : This area is well served by road and by rail since it is situated between the Central Railway lines and the Kalyan-Badlapur road. Ambarnath itself is a highly industrialised town. A number of major industries like WIMCO, Messrs. Dharmasi Morarjee Chemicals Ltd., ION Exchange, Tak Machinery, K. T. Steel Industries, Swastik Oil Mills, Glass Carboys, Garlia, etc. are located at Ambarnath. The area consists of two zones, one for chemical and another for engineering industries. The sheds are made available only for chemical units. The land for the industrial estate was acquired long back and State Government first entrusted it to the erstwhile Board of Industrial Development. The industrial estate was established in September 1962. Subsequently the Corporation developed the area by providing almost all the facilities including the net-work of roads, supply of water and electric power.

The industrial area including the additional area is spread over an area of 719.03 hectares. There were about 112 factories in production and seven under construction by the end of March 1976. The capital investment and the annual turnover of the factories in production by the end of March 1976 were Rs. 1559.67 lakhs and Rs. 6027.20 lakhs, respectively. The factories in production provided an employment to 5,565 persons. The additional area of 507.79 hectares is yet to be developed.

The industry-wise break-up of the factories in production as on 31st March 1976 is given below :—

Particulars	Number of factories	
(1) Chemical	...	74
(2) Engineering	...	18
(3) Rubber products	...	4
(4) Import-export agents	...	1
(5) Vegetable oil	...	1
(6) Saw mills and wooden packing	...	3
(7) Ice factories	...	1
(8) Water-proof paper	...	1
(9) Embroidery works	...	5
(10) Tiles	...	2
(11) Art silk processing	...	1
(12) Nylon yarn	...	1
Total	...	112

Badlapur Industrial Area : The industrial estate is situated about two kilometres east of Badlapur railway station on the Central Railway. It is also served by the Kalyan-Badlapur road and is planned both for engineering and chemical industries. The area has got good foundation conditions. The water-supply is made available from the Ulhas river. All other facilities including a net-work of roads, supply of electric power, etc., have been made available in the area.

The industrial estate comprises an area of about 104.41 hectares. It was established in March 1964. There were about 69 factories in production and twenty under construction. The fixed capital investment and the annual turn-over of the factories in production by the end of March 1976 were Rs. 363.61 lakhs and Rs. 476.34 lakhs, respectively. The industries provided employment to over 1,502 persons in March 1976.

The industry-wise classification of the factories in production by the end of March 1976 was as follows :—

Particulars	Number of factories
(1) Engineering	38
(2) Chemical	14
(3) Rubber works	1
(4) Plastic	3
(5) Electric tape manufacturing	1
(6) Hosiery	1
(7) Food products	1
(8) Sports nets	1
(9) Tiles	1
(10) Textile processing	1
(11) Woollen	2
(12) Leather	1
(13) Ice factories	1
(14) Glass works	1
(15) Writing pencils	1
(16) Book-binding cloth	1
Total	69

Bhivandi-Kalyan Industrial Area : This industrial estate is situated on the Bhivandi-Kalyan road. It was established in April 1970. Its area including the additional area comprises 116.03 hectares of land. There were about sixteen factories in production and three under construction by the end of March 1976. The fixed capital investment and the annual turn-over of the factories in production in the year ending March 1976 were Rs. 474.93 lakhs and Rs. 973.34 lakhs, respectively. The same

factories provided employment to about 1,182 persons. The additional area of 67.87 hectares is yet to be developed.

The category-wise classification of the factories in production is as follows :—

Particulars			Number of factories	
(1) Engineering	2
(2) Dyeing	1
(3) Chemical	7
(4) Textile processing	2
(5) Nylon yarn processing	1
(6) Paper and paper products	2
(7) Processing of hides and skins	1
Total			...	16

Tarapur Industrial Estate : This industrial estate is about two kilometres west of Boisar railway station on the Western Railway. It was established in March 1972. The industrial estate including the additional area is spread over an area of 1,209.63 hectares. Of this, the additional area which is known as the Tarapur Industrial Area II and which is spread over 414.37 hectares is yet to be developed. In the remaining area there were twenty-two factories in production and eight under construction by the end of March 1976. The fixed capital of the factories in production and their annual turn-over during the same period were Rs. 956.86 lakhs and Rs. 555.05 lakhs, respectively. The factories in production provided employment to about 1,199 persons.

The category-wise break-up of the factories in production, as on 31st March 1976, was as follows :—

Particulars			Number of factories	
(1) Engineering	8
(2) Chemical	8
(3) Writing pencils	1
(4) Oxygen	1
(5) Plastic	2
(6) M.S.E.B (Sub-station)	1
(7) Paper products	1
Total			...	22

Mira Industrial Area : This area is situated along the Western Express Highway. It was established in April 1964. It is the smallest

industrial area which is spread over 7.82 hectares. It was first developed by the Maharashtra Industrial Development Corporation and was subsequently handed over to the Co-operative Industrial Society. Small plots have been carved out in this area and they have been allotted to the members of the West Suburban Manufacturers Association Ltd. There were five factories in production and ten under construction by the end of March 1976. The fixed capital investment and the annual turn-over of the factories in production during the same period were Rs. 20.48 lakhs and Rs. 38 lakhs, respectively. The factories in production provided employment to over 65 persons.

The industry-wise break-up of the factories in production, as on 31st March 1976, was as follows :—

Particulars			Number of factories
(1) Chemical	...	...	2
(2) Textile	...	...	1
(3) Engineering	...	...	2
Total			5

In addition to the above-described industrial areas two more industrial areas are proposed to be established in the district. Of these, one is at Wangni and another at Bhivandi. Wangni is a railway station on the Central Railway while Bhivandi is about eight miles from Kalyan which is a railway junction. The Wangni Industrial Area will be spread over an area of about 420.92 hectares. The Bhivandi Industrial Area is quite different from that which has already been described as Bhivandi-Kalyan Industrial Area including its additional area. The new Bhivandi Industrial Area will be spread over an area of about 293.07 hectares. Both, the Wangni and Bhivandi industrial areas, are yet to be developed.

INDUSTRIAL CO-OPERATIVE ESTATES

Besides the industrial estates established by the Maharashtra Industrial Development Corporation, some industries are organised in a few areas on a co-operative basis. These areas are known as industrial co-operative estates. The industries in these estates are generally small-scale factories. It is rather difficult for small industries to establish themselves independently. In order to avail of the benefits of co-operative efforts small industrialists come together to obtain land from Government as also the no objection certificate from the Industries Department for establishing industries in the area. The industrialists then

approach the Co-operation Department which, after having scrutinised the proposals, approve the organisation of industrial co-operative estates. These estates are of two types. In one case they look after only the points of common interest such as development of linking roads, supply of water and electric power, and various other amenities and facilities. In the other case the authorities of the estates help the industrial units in obtaining loans, machinery and tools, raw materials, marketing of finished products, etc. Such industrial co-operative estates have been organised in the district at six places, of which one at Dahisar is defunct since 1972-73. A brief description of these estates is given below :

(1) **Bassein Taluka Industrial Co-operative Estate Ltd.:** The estate was registered in January 1963 in the vicinity of the villages, viz., Achole and Gokhivare covering an area of about 16.60 hectares. The area is well developed and provided with the facilities such as telephone exchange, canteen, State Transport bus service etc. There were 136 members of the estate by the end of June 1976. There are in all 72 plots, out of which 57 have been allotted to the members. Factory-sheds have been constructed on 28 plots and production has also been started therein. Of the 28 factory-sheds, 21 have been constructed by the estate and seven by the individual members. The estate has employed about fifty persons on the administrative side while the factories in production have provided employment to over 400 persons. The category-wise break-up of the factories in production as on 9th February 1977 is given below :—

Particulars	Number of factories
(1) Textile	3
(2) Stationery	3
(3) Printing press	1
(4) Chemical	7
(5) Engineering	14
Total	28

The financial position of the estate in the beginning of 1977, was as follows :—

	Rs.
(1) Authorised capital	10,00,000
(2) Paid-up share-capital	4,50,500
(3) Working capital	2,74,158
(4) Government matching contribution.	3,60,000
(5) Loans—	
By Government	Nil.
By L.I.C.	3,24,000

(2) **Nandanvan Co-operative Industrial Estate Ltd. :** The estate lies about a kilometre west of the Thane railway station. It was established in December 1965 over an area of about 14,977 square yards. The area comprises 54 units, of which 49 have been allotted to 49 members. All the 54 units are housed in three buildings constructed by the estate.

There were 33 factories in production by the end of June 1976. The category-wise break-up of these factories for the said period was as follows :—

(1) Plastic	...	...	6
(2) Steel, springs and iron fabrication	...	...	14
(3) Industrial safety equipment and accessories.	...	...	2
(4) Electrical appliances	...	...	3
(5) Paper and paper products	...	...	2
(6) Chemical	...	...	1
(7) Synthetic fibre	...	...	4
(8) Manufacturing of gum	...	...	1
Total			33

The estate has employed about eight persons to look after its administrative work. The factories in production provided employment to over 112 persons on the administration side and to 524 persons on the production side. The financial position of the estate by the end of June 1976 was as follows :—

			Rs.
(1) Authorised capital	...	...	1,00,000
(2) Paid-up share-capital	...	...	26,000
(3) Working capital	...	...	N.A.
(4) Government matching contribution.	...	...	Nil.
(5) Loans	...	...	Nil.

N.A. = Not available

The facilities provided by the estate consist of supply of water, electric power and maintenance of roads. It also intervenes in the disputes of the members.

(3) **Palghar Taluka Co-operative Industrial Estate Ltd. :** The estate was established in January 1963 over an area of 8.91 hectares in the Juna-Palghar area on the Palghar-Vasai road. There were 102 members of the estate by the end of June 1976. The area is divided into 54 plots of which sixteen have been allotted to its members. Four members have

constructed factory-sheds and started production. The factories in production were as follows :—

(1) Printing press	...	...	...	1
(2) Blending industrial oil	...	...	...	1
(3) Wood carving and wood products	...	...	...	1
(4) Grinding salt	...	...	...	1
Total				4

The administrative staff of the estate consisted of three persons while the factories in production provided employment to over thirty persons. A good net-work of roads and supply of water and electric power is made available in the estate.

The financial position of the estate for the period ending June 1976 was as follows :—

	Rs.
(1) Authorised capital	5,00,000
(2) Paid-up share-capital	1,26,000
(3) Working capital	56,714
(4) Government matching contribution.	1,00,000
(5) Loan	Nil.

(4) **Mira Co-operative Industrial Estate Ltd.:** It is the smallest estate lying along the S. V. Road over an area of about 4.46 hectares. It was established in February 1965. The total number of members and the plots of the estate by the end of June 1976 were 37 and 31, respectively. Twenty-two factories have gone in production providing employment to over 368 persons including 48 workers in the administrative wing. The authorised capital and the paid-up share-capital of the estate during the period stated above were Rs. 15,00,000 and Rs. 7,55,900, respectively. The estate has got two water boring sets as also a reservoir of about 1,000 M.G.D. The estate has made available an electric power and constructed a good net-work of roads in the area.

(5) **Textile Store and Machinery-Manufacturers' Co-operative Estate Ltd.:** The estate was established in June 1970. Its area of operation is about four kilometres from Majiwada. The estate consists of 48 plots. Factories are yet to come up in the estate. The work was held up for want of "no objection certificate" from the Industries Department and some litigations regarding the land of the estate. There were 45

members of the estate by the end of June 1976. The financial position of the estate for the said period is given below :—

		Rs.
1. Authorised share-capital	...	5,00,000
2. Paid-up share-capital	...	92,000
3. Reserve Fund	...	16,310
4. Deposits	...	26,05,760

The estate has constructed a good net-work of roads. It, however, did not succeed in getting the electric connections so far.

INDUSTRIAL ASSOCIATIONS

The establishment of industries in the industrial areas, organisation of industrial estates on the co-operative basis, establishment of heavy industries independently of any organisation, carrying on indigenous industries like salt-making, fishing etc., and cottage and village industries all are but different ways with which the economy of the district is geared up. In order to reap the benefits of organised efforts for redressal of their grievances and to help in developing the general climate of industrialisation two industrial associations, viz., the Thane Manufacturers' Association and Thane District Industrial Co-operative Association Ltd., have been organised in the district. A brief account of these organisations is given below :

(1) Thane Manufacturers' Association : The Thane Manufacturers' Association was registered under the Bombay Non-Trading Corporation Act of 1959 on April 5, 1963. There were 200 members of the association in 1975-76. Of these, 25 members constituted a managing committee to look after the activities of the association. At present its office is housed in the premises of the Paper Products Ltd., Majiwada.

Within the short span of its existence, the association helped its members in a number of ways. It represented the industrialists' case about octroi, power and water-supply at reasonable rates, transport facilities, street lighting, bonus issue, disturbances during workers' strikes, vehicular transport and industrial housing.

(2) Thane District Industrial Co-operative Association Ltd. : It is a federal body of the industrial co-operative societies in the district which was established in February 1958 with its headquarters at Parnaka, Bhivandi. After a few years of its successful working, the association started dwindling because of the establishment of federal bodies at the district level to look after the working of the forest labourers' and other labourers' co-operative societies as also due to the lifting of ban on the supply of raw materials by the Government. The

association, however, again stood on strong footing when it undertook the work of helping the weavers' societies. At present it looks after the working of about 350 powerlooms. The association supplies raw materials to its members and also finds a good market for the finished products. The association earned about Rs. 1.35 lakhs by way of commission during 1975-76. Its share-capital and reserve fund during the said period amounted to Rs. 2,67,450 and Rs. 5.77 lakhs, respectively. The association went in for bank loan of Rs. 10 lakhs for the period ending December 1976.

The membership of the association went up to 1,188 by the end of June 1976 including 149 industrial co-operative societies, 917 individual members and 122 nominal members. The break-up of the 149 members is given below :—

(1) Forest labourers	...	...	43
(2) Manufacture of <i>neera</i> and <i>tadgul</i>	...	...	20
(3) Weaving	...	...	6
(4) Village industries	...	...	10
(5) Collection of sand	...	...	6
(6) Leather manufacturing	...	...	4
(7) <i>Mahila Udyog</i>	...	...	2
(8) Labourers	...	...	32
(9) Manufacturing of bricks	...	...	6
(10) Carpentry and blacksmithy	...	...	5
(11) Industrial estate	...	...	5
(12) Salt-manufacturing	...	...	3
(13) <i>Dhatu va kala</i>	...	...	6
(14) Weaving mill	...	...	1
Total			149

LABOUR ORGANISATION

The economy of the district underwent a process of new orientation through the establishment of industries, both small and large, especially since Independence. The industrial development in the district started gaining ground with the dawn of twentieth Century and it gathered momentum after Independence. Prior to twentieth Century, the district had a few industries which mainly included indigenous industries such as salt-making, sugar-making, silk and cotton weaving, wood-carving, paper-making, fibre-making and the industries under the management of the Superintendent, Thane Jail. The industries were mostly small

units, and the labour force they employed was so small that it hardly gave any incentive to organise industrial labour. The nature of work and the conditions then prevailing did not provide incentive to organise labour. As such the organisation of industrial labour into different trade unions did not receive importance. The movement of trade unionism in the district received impetus after Independence. The district, especially the urban centres along the railway lines, became an abode for industries of different types creating thereby considerably high employment potential which necessarily means absorption of working population. The result was that with the growth of industrial complex the industrial inter-actions of the human element felt the necessity of protecting its interests. The workers therefore formed trade unions with a view to securing better conditions of work, higher wages, etc. The Woollen Mill Kamgar Union being established on 27th September 1947 is the oldest of the existing 121 unions in the district. Of the 121 unions, 37 unions were registered during the period of fourteen years from 1947 to 1964, 42 were registered during the seven years between 1965 and 1971 while as many as 42 were registered only within three years, 1972 to 1974. These unions covered various industries such as chemical engineering, textile, salt, rayon, etc., as also non-industrial activities such as municipal unions, unions of the office-bearers of different industries.

With the passing of the Bombay Industrial Relations Act, 1946 (State Act), and the Industrial Disputes Act, 1947, which were brought into force by the then Bombay Government on 29th September 1947 and 1st April 1947, respectively, the relations between the industrial employees and employers have been precisely regulated. Both the laws provide for a machinery for settlement of industrial disputes either by conciliation and arbitration under the Bombay Industrial Relations Act or by conciliation and adjudication under the Industrial Disputes Act. Table No. 13 gives information regarding the number of industrial disputes, workers involved therein and man-days lost since 1925.

Besides the legislative measures described above, the Bombay Shops and Establishments Act, 1948 ; Employees' State Insurance Act, 1948 ; Employees' Provident Fund Act, 1952 ; Minimum Wages Act, Workmen's Compensation Act and a number of other labour laws are made applicable to the industrial workers in Thane district. These measures have a definite impact on the welfare and job protection of the workers. The Maharashtra Labour Welfare Board, a body constituted under the Bombay Labour Welfare Fund Act, 1953, is also very active in the district and looks after welfare activities of the industrial workers through its three centres in the district, viz., Thane, Ambarnath and Bhivandi.

20. Transport equipment	..	..	11	11	11	12	14	15	16	15	15	17
21. Miscellaneous industries	..	..	14	19	26	28	31	31	36	37	43	46
22. Electricity, gas and steam	..	..	12	12	12	13	14	13	12	12	13	13
23. Water and sanitary services	..	..	1	1	1	1	1	1	1	1	1	1
24. Recreation services	..	..	..	..	..	..	..	..	..	..	..	..
25. Personal services	..	..	1	1	1	1	1	1	1	1	1	1
Total	..	493	514	534	575	674	727	788	769	825	854	854

Source.—Statistical Abstracts of Maharashtra State, Bureau of Economics and Statistics, Government of Maharashtra.

TABLE NO. 2.—DISTRIBUTION OF WORKING FACTORIES ACCORDING TO WORKING STRENGTH IN THANE DISTRICT FROM 1961 TO 1970

Working strength (1)	1961 (2)	1962 (3)	1963 (4)	1964 (5)	1965 (6)	1966 (7)	1967 (8)	1968 (9)	1969 (10)	1970 (11)
1-9 ..	41	94	67	101	78	87	74	92	99	64
10-19 ..	142	164	148	170	201	205	233	205	198	189
20-49 ..	77	135	166	143	190	209	236	234	250	277
50-99 ..	25	50	71	67	86	98	99	86	116	149
100-499 ..	27	60	71	77	97	109	121	123	126	136
500-999 ..	3	5	5	9	13	11	17	18	21	25
1,000-4,999 ..	5	6	6	8	9	8	8	11	15	14
5,000 and above ..	..	..	..	..	..	..	..	..	..	..
Total ..	320	514	534	575	674	727	788	769	825	854

Note.—For 1961 the working strength was divided as less than 10, 10 to 20, 20 to 50, 50 to 100, 100 to 500, 500 to 1,000, 1,000 to 5,000 and more than 5,000.

TABLE No. 3—INDUSTRIAL GROWTH OF THANE DISTRICT IN COMPARISON WITH OTHER IMPORTANT DISTRICTS
IN THE STATE

District	1961		1962		1963		1964		1965		
	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Thane	..	493	35,399	514	38,820	534	45,568	575	52,710	674	62,030
Pune	..	716	35,361	816	39,759	891	45,188	850	51,225	895	55,876
Nagpur	..	329	31,298	326	29,743	335	31,650	360	30,942	394	29,285
Solapur	..	324	36,804	338	34,285	335	33,100	337	30,457	335	29,573
Kolhapur	..	315	10,315	328	10,170	334	10,686	342	11,874	358	13,057
Nashik	..	315	18,128	302	19,364	308	20,375	312	21,706	301	21,075

District	1966		1967		1968		1969		1970		
	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	Factories	Average daily workers	
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
Thane	..	727	66,302	788	71,575	769	79,319	825	88,947	854	96,601
Pune	..	797	55,580	906	62,039	804	61,712	862	68,471	891	74,012
Nagpur	..	376	29,524	363	28,064	368	27,673	368	27,685	383	28,334
Solapur	..	318	27,826	324	28,089	309	26,002	298	25,118	353	26,136
Kolhapur	..	359	14,492	349	13,732	358	15,963	366	16,688	370	16,673
Nashik	..	261	19,961	275	20,834	303	21,175	306	21,521	250	16,268

**TABLE No. 4—ELECTRICAL ENERGY GENERATED, PURCHASED
AND CONSUMED IN THANE DISTRICT FROM 1951 TO 1958-59**

(In thousands of K.W.H.)

Year	K.W.H. generated	K.W.H. purchased	K.W.H. sold to public						
			Domestic consump- tion	Commercial light and small power	Industrial power	Public lighting	Other purposes	Total	
1951	..	176	12,328	3,375	470	5,198	254	1,642	10,939
1952	..	203	11,830	2,902	418	5,199	257	1,672	10,448
1953	..	619	14,479	3,575	491	6,885	302	1,998	13,251
1954	..	667	17,151	4,035	592	8,800	324	2,237	15,988
1955	..	5,60,158	20,875	4,389	694	3,40,811	364	2,422	3,48,680
1956	..	5,56,741	27,052	5,461	1,287	3,48,361	427	2,906	3,58,442
1957-58	..	7,42,721	39,304	8,150	2,409	4,46,022	745	4,423	4,61,749
1958-59	..	4,39,504	37,521	7,848	2,177	19,507	763	3,430	33,725

Source.—District Census Handbook, Thana, 1961, page 256.

**TABLE No. 5—CONSUMPTION OF ELECTRIC POWER SUPPLIED BY
THANA ELECTRIC SUPPLY COMPANY LTD. FROM 1959-60
TO 1971-72**

Year	K.W.H. purchased	K.W.H. sold to public					Total
		Domestic consumption	Commercial light and power	Industrial power	Public lighting	Other purposes	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60	1,61,42,749	38,78,110	16,56,321	91,80,546	3,67,362	..	1,50,82,339
1964-65	4,10,57,658	67,28,955	52,62,259	2,58,23,297	5,06,778	..	3,83,21,289
1969-70	8,40,93,849	1,47,82,160	97,72,082	5,05,19,524	14,37,023	5,01,249	7,70,12,038
1970-71	9,42,90,560	1,77,11,241	1,15,93,026	5,59,20,651	17,72,309	5,39,500	8,75,36,727
1971-72	10,71,46,240	2,14,60,271	1,30,19,805	6,40,44,699	17,14,534	5,59,248	10,07,98,557

TABLE No. 6—CONSUMPTION OF ELECTRIC POWER SUPPLIED BY THE AMALGAMATED ELECTRICITY COMPANY LTD.
FROM 1959-60

Year	K.W.H. purchased	K.W.H. sold to public								
		Domestic consumption		Commercial		Industrial power	Public lighting	Other purposes	Total	
		Lighting	Heating	Lighting	Heating					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1959-60	..	1,82,71,200	9,66,603	7,107	12,52,291	92,057	1,38,01,769	1,07,756	1,47,644	1,63,75,227
Rate per unit	..		17.48	11.50	14.36	9.20	5.02	12.49	12.66	
1964-65	..	5,33,64,000	14,43,953	69,502	53,73,200	2,27,473	4,00,80,419	2,20,994	1,22,930	4,75,38,471
Rate per unit	..		17.63	11.00	14.51	11.00	5.92	10.23	7.58	
1969-70	..	9,60,15,000	23,12,501	1,10,803	75,25,719	3,48,826	7,12,31,505	2,96,695	92,230	8,19,18,279
Rate per unit	..		19.74	13.68	17.15	13.68	8.85	12.38	10.00	
1970-71	..	9,83,69,000	23,73,348	1,27,201	75,81,185	3,10,729	7,26,82,593	3,05,442	1,52,350	8,35,32,848
Rate per unit	..		20.72	14.62	17.67	15.72	9.38	12.84	9.59	
1971-72	..	11,06,90,450	26,19,256	1,43,837	85,42,368	3,53,876	8,19,73,647	3,34,931	1,93,619	9,41,61,534
Rate per unit	..		20.57	16.21	17.95	16.21	9.69	13.85	9.15	

TABLE NO. 7—CONSUMPTION OF ELECTRIC POWER SUPPLIED
(K.W.H.) BY THE BASSEIN ELECTRIC SUPPLY
COMPANY LTD. FROM 1959-60

Year	K.W.H. purchased	Domestic consumption	Commercial light and power	Industrial power	Public lighting	Other purposes	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1959-60 ..	10,01,167	2,68,842	1,82,615	1,64,578	64,636	70,948	7,51,619
1964-65 ..	16,06,009	5,00,786	2,69,252	1,53,111	65,286	2,15,597	12,04,032
1969-70 ..	25,64,800	7,37,881	2,65,195	5,65,540	99,080	2,23,965	18,91,661
¹ 1970-71 ..	27,73,600	8,29,067	2,86,778	5,87,625	1,01,782	2,43,423	20,48,675
1971-72 ..	29,53,440	9,42,451	2,96,112	5,44,118	1,13,235	2,67,935	21,63,851

TABLE NO. 8—ELECTRICITY (K.W.H.) SUPPLIED BY THE
BOMBAY SUBURBAN ELECTRIC SUPPLY LTD., IN THANE
DISTRICT FROM 1967-68 TO 1972-73

Year	Domestic consump- tion	Commercial light and power	Industrial power	Public lighting	Total
(1)	(2)	(3)	(4)	(5)	(6)
1967-68 ..	3,07,301	1,71,303	11,38,759	12,099	16,29,462
1968-69 ..	3,63,654	2,11,808	16,06,086	12,065	21,93,613
1969-70 ..	3,97,078	2,28,726	22,36,764	12,346	28,74,914
1970-71 ..	4,85,469	2,69,303	31,27,724	19,735	39,02,231
1971-72 ..	6,18,130	3,91,680	39,96,860	57,990	50,64,660
1972-73 ..	7,40,260	4,42,140	45,60,450	60,040	58,02,890

TABLE No. 9—CONSUMPTION OF ELECTRIC POWER SUPPLIED (K.W.H.) BY THE BOARD IN THANE DISTRICT

Year	K. W. H. purchased	Domestic consumption	Commercial light and small power	Industrial power	Public lighting	Other purposes	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1964-65	..	N.A.	71,72,296	27,02,238	3,18,27,031	6,52,203	41,99,473	4,65,53,241
1965-66	..	N.A.	85,52,145	32,64,438	2,10,20,120	5,50,247	50,45,320	3,84,32,270
1966-67	..	N.A.	1,11,18,737	39,90,891	3,97,28,435	8,76,276	70,23,187	6,27,37,526
1967-68	..	N.A.	1,29,05,319	1,81,03,397	1,17,25,907	8,98,762	2,04,29,162	17,40,62,547
1968-69	..	53,37,15,087	1,69,13,412	56,50,005	41,46,69,074	10,19,447	1,49,55,779	45,32,07,717
1969-70	..	56,49,37,115	1,68,01,730	62,36,750	47,65,29,326	12,23,331	3,46,77,148	53,54,68,285
1970-71	..	68,08,48,578	2,18,79,762	79,46,679	57,28,58,064	38,10,374	5,76,07,604	66,41,02,483
1971-72	..	73,66,70,427	1,16,06,668	1,02,64,976	64,56,56,680	17,21,952	4,06,07,467	70,98,57,743

N.A. = Not available.

TABLE No. 10—ELECTRICITY GENERATED, PURCHASED AND
CONSUMED BY THE KALYAN POWER HOUSE FROM
1958-59

(Figures in M.W.)

Year		Units generated	Units purchased from Messrs. Tatas	Units sold to Messrs. Tatas	Consumption by the power house auxiliar
(1)		(2)	(3)	(4)	(5)
1958-59	..	427·466	....	79·684	346·97
1963-64	..	307·262	125·932	....	433·19
1968-69	..	439·182	49·153	....	488·34
1971-72	..	110·516	340·364	....	435·20

TABLE No. 11—TALUKA-WISE FINANCIAL ASSISTANCE GIVEN BY
THE KHADI AND VILLAGE INDUSTRIES BOARD IN THE DISTRICT
AS ON 31ST MARCH 1976

Taluka		Oil ghani	Leather	Pottery	Carpentry and blacksmithy	Cane and bamboo	Gobar gas	Soap
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Thane	.. L	4,075	15,737	3,487	2,025	682	..	3,750
	S	500	8,625	1,300	1,350	70	..	750
Bhivandi	.. L	4,300	6,187	2,775	14,100	10,992	1,460	..
	S	500	1,725	150	5,550	580	300	..
Shahapur	.. L	8,900	8,737	8,592	42,380	2,630	..	..
	S	1,000	2,000	1,330	18,155	180	..	..
Vasai	.. L	8,150	2,972	3,062	53,340	58,573	..	..
	S	1,000	1,135	700	3,765	31,448	..	..
Kalyan	.. L	150	4,087	3,687	8,400	1,335	..	..
	S	..	1,725	1,250	4,200	110	..	..
Jawhar	.. L	150	1,827	702	4,355	87	..	1,00,000
	S	..	865	90	855	..	..	..
Mokhada	.. L	150	332	612	8,755	87	..	30,000
	S	..	70	175	3,205	..	..	..
Dahanu	.. L	..	262	525	7,789	4,322	2,720	..
	S	..	..	..	3,140	210	300	..
Palghar	.. L	..	3,297	3,675	34,565	12,557	16,500	..
	S	..	1,460	530	3,915	820	6,000	..
Wada	.. L	..	2,112	2,714	6,300	..	..	..
	S	..	915	1,050	4,200	..	..	..
Ulhasnagar	.. L	..	9,490	3,830	15,285	5,072	4,020	..
	S	..	4,940	1,555	7,785	435	600	..
Murbad	.. L	..	3,796	3,847	5,585	6,905	2,010	2,00,000
	S	..	734	1,485	710	130	300	..

Note.—(1) L=Loan, S=Subsidy.

(2) A Loan of Rs. 1,000 was given to a person in Shahapur taluka for lime manufacturing.

(3) A Loan of Rs. 1,050 was given to a person in Kalyan taluka for processing of cereals and pulses.

TABLE NO. 12—NUMBER OF TOWNS AND VILLAGES ELECTRIFIED

Taluka	1960-61		1961-62		1962-63	
	Number of towns and villages electrified	Number of pumps supplied with power	Number of towns and villages electrified	Number of pumps supplied with power	Number of towns and villages electrified	Number of pumps supplied with power
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Thane ..	..	..	..	..	..	..
Kalyan ..	3	..	2	..	1	..
Ulhasnagar ..	..	..	..	..	..	..
Murbad ..	..	..	..	..	..	..
Bhivandi ..	..	..	..	..	..	..
Wada ..	..	..	..	..	..	..
Shahapur ..	..	..	1	..	..	..
Jawhar ..	1	..	..	..	..	..
Mokhada ..	..	..	..	..	..	..
Palghar ..	..	..	..	..	..	..
Vasai ..	1	..	9	..	8	..
Dahanu ..	..	..	..	..	..	..
Talasari ..	..	..	..	..	..	..
Total ..	5	..	12	..	9	..

TABLE

Taluka	1967-68		1968-69		1969-70	
	Number of towns and villages electrified	Number of pumps supplied with power	Number of towns and villages electrified	Number of pumps supplied with power	Number of towns and villages electrified	Number of pumps supplied with power
(1)	(16)	(17)	(18)	(19)	(20)	(21)
Thane ..	8	..	12	..	4	18
Kalyan ..	10	..	28	..	2	21
Ulhasnagar ..	..	..	..	..	..	39
Murbad ..	1	..	29	..	1	1
Bhivandi ..	6	..	33	..	3	70
Wada ..	6	..	24	..	4	19
Shahapur ..	1	..	22	..	3	11
Jawhar ..	..	..	12	..	..	..
Mokhada ..	..	..	1	..	..	..
Palghar ..	5	..	35	..	3	672
Vasai ..	10	..	29	..	..	1,078
Dahanu ..	4	..	33	..	..	462
Talasari ..	..	..	27	..	..	37
Total ..	51	..	285	..	20	2,428

AND PUMPS SUPPLIED WITH POWER BY THE BOARD IN THANE DISTRICT.

1963-64		1964-65		1965-66		1966-67	
Number of towns and villages electrified (8)	Number of pumps supplied with power (9)	Number of towns and villages electrified (10)	Number of pumps supplied with power (11)	Number of towns and villages electrified (12)	Number of pumps supplied with power (13)	Number of towns and villages electrified (14)	Number of pumps supplied with power (15)
1	6	..	7	..
5	..	7	..	7	..	10	..
..
1
4	..	3	..	15	..	20	..
..	14	..
4	..	1	..	1	..	1	..
..	1	..
..
..	..	1	..	16	..	10	..
1	..	8	..	4	..	2	..
..	..	1	..	3	..	8	..
..
16	..	21	..	52	..	73	..

No. 12—*contd.*

1970-71		1971-72		1972-73		Total	
Number of towns and villages electrified (22)	Number of pumps supplied with power (23)	Number of towns and villages electrified (24)	Number of pumps supplied with power (25)	Number of towns and villages electrified (26)	Number of pumps supplied with power (27)	Number of towns and villages electrified (28)	Number of pumps supplied with power (29)
8	8	1	8	..	3	47	37
4	2	5	8	..	7	84	38
4	2	3	1	..	4	7	46
11	4	..	4	..	1	43	10
7	14	3	10	..	4	94	98
8	17	10	6	..	15	66	57
10	14	..	11	..	9	44	45
11	..	1	3	..	..	26	3
7	..	6	..	..	..	14	..
8	120	3	95	5	160	86	1,047
11	188	1	234	4	204	88	1,704
7	115	1	123	5	170	62	870
..	16	..	31	..	47	27	131
96	500	34	534	14	624	688	4,086

TABLE NO. 13—INFORMATION REGARDING INDUSTRIAL DISPUTES,

Year	Locality	Number of industrial disputes			
		Textile	Engineering	Miscellaneous	Total
(1)	(2)	(3)	(4)	(5)	(6)
1925	....	..	..	..	..
1926	Kalyan	..	..	1	1
1927	Thane	..	..	1	1
1928	Ambarnath	..	..	2	2
1929	Ambarnath	..	..	2	2
1930	....	..	..	..	..
1931	Thane	..	..	1	1
1932	Thane	..	1	1	2
	Bhiwandi	..	1	..	1
1933	....	..	..	..	..
1934	Ambarnath	..	..	1	1
1935	Ambarnath	..	..	4	4
	Thane	..	1	1	2
1936	Thane	..	2	1	3
	Ambarnath	..	..	1	1
1937	Bhayandar	..	..	1	1
1938	Bhiwandi	..	..	1	1
	Thane	..	..	1	1
1939	Bhiwandi	..	2	1	3
1940	Wada	..	..	1	1
1941	....	Information not available			
1942	Ambarnath	..	2	1	3
	Thane	..	..	2	2
1943	Ambarnath	..	1	..	1
	Netivli	..	..	1	1
	Bhayandar	..	..	1	1
1944	Thane	..	..	1	1
	Juchandra	..	..	1	1
1945	Thane	..	3	..	3
	Bhiwandi	..	..	1	1
	Dahanu	..	..	1	1

WORKERS INVOLVED AND MAN-DAYS LOST IN THANE DISTRICT

Number of workers involved				Number of man-days lost			
Textile	Engin- eering	Misce- llaneous	Total	Textile	Engin- eering	Misce- llaneous	Total
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
..
..	..	150	150	..	..	778	778
..	..	1,235	1,235	..	..	3,088	3,088
..	..	2,490	2,490	..	..	17,470	17,470
..	..	410	410	..	..	410	410
..
..	..	750	750	..	..	4,000	4,000
19	..	20	39	19	..	38	57
40	40	420	..	..	420
..
..	..	125	125	..	..	125	125
..	..	2,348	2,348	..	..	30,813	30,813
30	..	725	755	30	..	9,960	9,990
273	..	498	771	1,431	..	3,329	4,760
..	..	950	950	..	..	59,697	59,697
..	..	288	288	..	..	3,893	3,893
..	..	103	103	..	..	1,065	1,065
..	..	480	480	..	..	2,941	2,941
95	..	29	124	625	..	319	944
..	..	67	67	..	..	67	67
925	..	225	1,150	8,325	..	2,025	10,350
..	..	314	314	..	..	4,432	4,432
672	672	672	..	..	672
..	..	115	115	..	..	173	173
..	..	200	200	..	..	1,200	1,200
..	..	116	116	..	..	174	174
..	..	610	610	..	..	610	610
1,678	1,678	1,979	..	..	1,979
..	..	12	12	..	..	12	12
..	..	50	50	..	..	100	100

TABLE

(1)	(2)	(3)	(4)	(5)	(6)
1946	Thane	1	..	5	6
	Kalyan .. ..	..	1	1	2
	Bhiwandi .. ..	..	..	2	2
	Dombivali .. ..	..	..	1	1
	Ambarnath	1	..	..	1
1947	Thane .. ..	..	..	3	3
	Bhiwandi .. ..	..	..	1	1
	Ambarnath	1	..	..	1
	Bhayandar .. ..	..	..	1	1
	Belapur .. ..	..	..	2	2
1948	Thane	5	..	3	8
	Belapur .. ..	..	..	1	1
	Bhiwandi .. ..	..	..	1	1
	Kalyan .. ..	..	1	..	1
	Kolshet .. ..	..	..	1	1
	Vadavli .. ..	..	..	1	1
	Virar .. ..	..	..	1	1
1949	Thane	1	..	2	3
	Ambarnath	2	..	..	2
	Vasai .. ..	..	..	1	1
	Kalyan	2	..	..	2
1950	Thane	1	..	..	1
	Vasai .. ..	..	..	1	1
	Bhiwandi .. ..	..	..	1	1
1951	Bhiwandi	3	..	1	4
	Kalwa	1	..	..	1
	Manpada	1	..	..	1
	Mohana	1	..	..	1
	Ulhasnagar .. ..	..	..	1	1
	Wada .. ..	..	..	1	1
1952	Thane	2	..	..	2
	Ambarnath	1	..	..	1
	Bhiwandi	1	..	..	1
	Kalwa .. ..	..	1	..	1
	Juchandra .. ..	..	..	1	1
1953	Thane	1	..	..	1
	Kalyan .. ..	..	..	1	1
	Bhayandar .. ..	..	..	1	1
	Manpada .. ..	..	..	1	1
	Ambarnath .. ..	..	2	..	2

No. 13—*contd.*

(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
3,198	..	831	4,029	28,782	..	3,097	31,879
..	100	112	212	..	1,088	784	1,872
..	..	81	81	..	..	371	371
..	..	17	17	..	..	51	51
1,900	1,900	9,500	..	..	9,500
..	..	2,241	2,241	..	..	12,403	12,403
..	..	171	171	..	..	342	342
454	454	842	..	..	842
..	..	160	160	..	..	160	160
..	..	1,148	1,148	..	..	7,898	7,898
3,487	..	532	4,019	8,717	..	3,562	12,279
..	..	1,100	1,100	..	..	10,508	10,508
..	..	29	29	..	..	29	29
..	600	..	600	..	1,200	..	1,200
..	..	89	89	..	..	89	89
..	..	74	74	..	..	666	666
..	..	144	144	..	..	696	696
22	..	519	541	176	..	5,619	5,795
3,746	3,746	46,790	..	..	46,790
..	..	250	250	..	..	500	500
124	124	493	..	..	493
1,471	1,471	12,143	..	..	12,143
..	..	98	98	..	..	1,556	1,556
..	..	30	30	..	..	90	90
766	..	67	833	7,033	..	67	7,100
42	42	42	..	..	42
75	75	38	..	..	38
48	48	48	..	..	48
..	..	396	396	..	..	6,908	6,908
..	..	344	344	..	..	4,071	4,071
192	192	264	..	..	264
393	393	3,080	..	..	3,080
25	25	106	..	..	106
..	860	..	860	..	13,062	..	13,062
..	..	11	11	..	..	143	143
85	85	2,595	..	..	2,595
..	..	12	12	..	..	84	84
..	..	700	700	..	..	32,900	32,900
..	..	155	155	..	..	1,958	1,958
..	4,146	..	4,146	..	18,511	..	18,511

TABLE

(1)	(2)			(3)	(4)	(5)	(6)
1954	Ambarnath	..	..	..	2	..	2
1955	Thane	..	..	2	2	1	5
	Bhiwandi	..	..	1	..	..	1
	Thakurli	..	..	..	1	..	1
	Wada	..	..	..	..	6	6
	Bhayandar	..	..	..	..	2	2
	Juchandra	..	..	..	..	1	1
1956	Thane	..	..	1	..	..	1
	Bhiwandi	..	..	..	1	..	1
	Thakurli	..	..	..	1	..	1
	Wada	..	..	..	..	2	2
	Bhayandar	..	..	..	..	2	2
	Chinchavali	..	..	..	..	1	1
	Mohana	..	..	..	..	1	1
	Kalwa	..	..	..	1	..	1
	Vaitarna	..	..	..	1	..	1
	Ambarnath	..	..	..	1	2	3
1957	Bhayandar	..	..	..	..	1	1
	Kalwa	..	..	..	1	..	1
	Kalyan	..	..	..	..	1	1
	Ulhasnagar	..	..	..	..	1	1
	Wada	..	..	..	..	5	5
1958	Thane	..	..	1	..	..	1
	Dahisar	..	..	..	..	1	1
	Kalyan	..	..	..	..	1	1
	Wada	..	..	..	..	5	5
	Nerul	..	..	..	..	1	1
	Ambarnath	..	..	..	1	..	1
	Vithalwadi	..	..	..	1	5	6
	Vadhawali	..	..	..	..	1	1
1959	Thane	..	..	..	..	3	3
	Shahad	..	..	1	..	..	1
	Kalyan	..	..	1	..	1	2
	Vithalwadi	..	..	..	..	1	1
	Ulhasnagar	..	..	..	..	1	1
	Morwa	..	..	..	..	1	1
	Kolshet	..	..	..	..	1	1
	Bhayandar	..	..	..	..	1	1
	Juchandra	..	..	..	..	1	1
	Dahanu	..	..	..	..	1	1
	Wada	..	..	..	..	2	2

No. 13—*contd.*

(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	45	..	45	..	70	..	70
1,641	116	136	1,893	30,860	3,219	119	34,198
12	..	..	12	12	..	..	12
..	300	..	300	..	169	..	169
..	..	1,291	1,291	..	..	2,230	2,230
..	..	40	40	..	..	1,280	1,280
..	..	540	540	..	..	3,850	3,850
1,107	..	..	1,107	1,107	..	..	1,107
..	360	..	360	..	720	..	720
..	271	..	271	..	271	..	271
..	..	541	541	..	..	1,373	1,373
..	..	110	110	..	..	1,305	1,305
..	..	60	60	..	..	300	300
..	..	49	49	..	..	409	409
..	2,600	..	2,600	..	31,043	..	31,043
..	31	..	31	..	298	..	298
..	2,232	97	2,329	..	2,232	78	2,310
..	..	25	25	..	..	625	625
..	3,000	..	3,000	..	3,000	..	3,000
..	..	100	100	..	..	100	100
..	..	136	136	..	..	272	272
..	..	1,713	1,713	..	..	4,941	4,941
185	..	..	185	264	..	..	264
..	..	150	150	..	..	450	450
..	..	13	13	..	..	5	5
..	..	1,126	1,126	..	..	4,033	4,033
..	..	291	291	..	..	291	291
..	417	..	417	..	104	..	104
..	83	346	429	..	52	7,674	7,726
..	..	232	232	..	..	4,872	4,872
..	..	220	220	..	..	461	461
1,193	..	..	1,193	12,417	..	..	12,417
117	..	323	440	117	..	485	602
..	..	60	60	..	..	35	35
..	..	31	31	..	..	56	56
..	..	1,030	1,030	..	..	10,415	10,415
..	..	76	76	..	..	380	380
..	..	143	143	..	..	988	988
..	..	275	275	..	..	550	550
..	..	34	34	..	..	534	534
..	..	411	411	..	..	2,591	2,591

TABLE

(1)	(2)	(3)	(4)	(5)	(6)
1960	Ambarnath	3	..	3	
	Diva .. ..	..	1	1	
	Majiwada .. ..	..	1	1	
	Thane .. ..	..	5	5	
	Ulhasnagar	2	4	6	
	Wada .. ..	..	1	1	
1961	Thane	2	3	6	11
	Vithalwadi .. ..	..	1	..	1
	Kalva .. ..	..	1	..	1
	Ambarnath .. ..	..	1	..	1
	Wada .. ..	..	..	1	1
	Diva .. ..	..	..	1	1
1962	Thane .. ..	..	..	2	2
	Dombivali	3	..	..	3
	Naupada .. ..	..	1	..	1
	Kalwa .. ..	..	1	..	1
	Titwala .. ..	..	1	..	1
	Karwe .. ..	..	..	1	1
	Belapur .. ..	..	..	1	1
	Wada .. ..	..	..	1	1
	Shahad .. ..	..	..	2	2
	Majiwada .. ..	..	..	1	1
	Khanpa .. ..	..	..	1	1
	Diva .. ..	..	..	2	2
1963	Thane	6	3	14	23
	Mohna	1	..	..	1
	Dhamgaon .. ..	..	1	..	1
	Majiwada .. ..	..	..	1	1
	Bhayandar .. ..	..	..	2	2
	Diva .. ..	..	..	1	1
	Kolshet .. ..	..	..	1	1
	Utalset .. ..	..	..	1	1
	Bhiwandi .. ..	..	..	1	1
	Mira .. ..	..	..	1	1
	Balkum .. ..	..	..	1	1
	Kalyan .. ..	..	..	2	2
1964	Thane	2	11	6	19
	Vasai .. ..	..	..	1	1
	Kalyan .. ..	..	..	1	1
	Manda .. ..	..	..	1	1
	Ulhasnagar .. ..	..	..	2	2

No. 13—*contd.*

(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	1,072	..	1,072	..	12,789	..	12,789
..	..	75	75	..	..	61	61
..	..	155	155	..	..	155	155
..	..	498	498	..	..	1,132	1,132
..	676	506	1,182	..	2,096	7,535	9,631
..	..	320	320	..	..	846	846
33	417	787	1,237	180	411	2,223	2,814
..	279	..	279	..	7,888	..	7,888
..	334	..	334	..	75	..	75
..	34	..	34	..	204	..	204
..	..	189	189	..	..	189	189
..	..	69	69	..	..	69	69
..	..	460	460	..	..	1,336	1,336
146	..	..	146	1,149	..	..	1,149
..	164	..	164	..	164	..	164
..	561	..	561	..	561	..	561
..	86	..	86	..	172	..	172
..	..	136	136	..	..	952	952
..	..	1,246	1,246	..	..	7,408	7,408
..	..	225	225	..	..	225	225
..	..	457	457	..	..	528	528
..	..	49	49	..	..	211	211
..	..	80	80	..	..	40	40
..	..	200	200	..	..	700	700
2,754	219	2,514	5,487	3,545	3,408	12,940	19,893
4,402	..	..	4,402	35,216	..	..	35,216
..	160	..	160	..	160	..	160
..	..	110	110	..	..	110	110
..	..	995	995	..	..	1,145	1,145
..	..	75	75	..	..	225	225
..	..	12	12	..	..	60	60
..	..	12	12	..	..	24	24
..	..	219	219	..	..	109	109
..	..	175	175	..	..	5,960	5,960
..	..	63	63	..	..	693	693
..	..	185	185	..	..	954	954
99	2,928	1,119	4,146	1,503	29,028	17,071	47,602
..	..	33	33	..	..	231	231
..	..	152	152	..	..	304	304
..	..	89	89	..	..	623	623
..	..	149	149	..	..	1,156	1,156

TABLE

(1)	(2)	(3)	(4)	(5)	(6)
1964	Kolshet	2	..	1	3
	Ambarnath	2	..	2	4
	Belapur .. ..	..	..	1	1
	Bhiwandi .. ..	..	..	1	1
	Shahad .. ..	..	..	1	1
	Majiwada .. ..	..	..	2	2
	Balkum	1	..	..	1
	Naupada	1	..	..	1
	Kalwa .. ..	..	1	..	1
1965	Thane	2	1	..	3
	Balkam	1	..	..	1
	Belapur .. ..	..	..	1	1
	Badlapur .. ..	..	..	1	1
	Bhiwandi	1	..	..	1
	Diva .. ..	..	..	1	1
	Dombivali .. ..	..	..	1	1
	Kalwa .. ..	..	3	..	3
	Kalyan .. ..	..	..	1	1
	Kolshet .. ..	..	1	..	1
	Murbad .. ..	..	1	..	1
	Manpada .. ..	..	..	1	1
	Panch Pakhari	1	1	..	2
	Mohna .. ..	..	..	1	1
	Shahad	1	..	..	1
	Tarapur .. ..	..	..	2	2
1966	Thane	3	11	16	30
	Ulhasnagar .. ..	..	1	..	1
	Vadavli .. ..	..	..	1	1
	Virar .. ..	..	..	1	1
	Washi .. ..	..	1	1	2
1967	Badlapur .. ..	..	..	1	1
	Bhayandar .. ..	..	..	2	2
	Dahisar .. ..	..	..	1	1
	Dahanu .. ..	..	1	..	1
	Dombivali .. ..	..	1	5	6
	Kalyan .. ..	..	..	3	3
	Kolshet .. ..	..	..	1	1
	Palghar .. ..	..	..	1	1
	Thane	5	31	30	66
	Titawala .. ..	..	..	1	1
	Vadvali .. ..	..	..	2	2
	Ulhasnagar .. ..	..	..	4	4

No. 13—concl'd.

(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1,498	..	13	1,511	1,498	..	91	1,589
393	..	189	582	84	..	419	503
..	..	1,002	1,002	..	..	2,004	2,004
..	..	156	156	..	..	234	234
..	..	646	646	..	..	20,026	20,026
..	..	516	516	..	..	3,459	3,459
151	..	..	151	151	..	..	151
61	..	..	61	1,403	..	..	1,403
..	50	..	50	..	15	..	15
540	145	..	685	181	63	..	244
63	..	..	63	47	..	..	47
..	..	1,600	1,600	..	..	40,000	40,000
..	..	136	136	..	..	136	136
58	..	..	58	290	..	..	290
..	..	50	50	..	..	250	250
..	..	40	40	..	..	40	40
..	625	..	625	..	625	..	625
..	..	85	85	..	..	656	656
..	15	..	15	..	14	..	14
..	17	..	17	..	85	..	85
..	..	195	195	..	..	195	195
1,875	160	..	2,035	1,875	1,920	..	3,795
..	..	3,953	3,953	..	..	24,325	24,325
125	..	..	125	39	..	..	39
..	..	8,523	8,523	..	..	97,457	97,457
1,597	714	3,383	5,694	5,612	15,899	7,108	28,619
..	100	..	100	..	100	..	100
..	..	19	19	..	..	95	95
..	..	55	55	..	..	110	110
..	70	100	170	..	31	100	131
..	..	128	128	..	..	384	384
..	..	25	25	..	..	1,279	1,279
..	..	245	245	..	..	289	289
..	22	..	22	..	396	..	396
..	23	273	296	..	483	2,639	3,122
..	..	908	908	..	..	1,166	1,166
..	..	600	600	..	..	2,500	2,500
..	..	130	130	..	..	130	130
1,383	4,143	6,042	11,568	10,289	29,729	83,356	1,23,374
..	..	97	97	..	..	4,638	4,638
..	..	182	182	..	..	630	630
..	..	1,632	1,632	..	..	4,922	4,922

TABLE NO. 14—EMPLOYMENT PROVIDED BY THE KHADI AND
VILLAGE INDUSTRIES IN THANE DISTRICT AS ON
31ST MARCH 1976

Taluka Vividha Karyakari Sahakari Gramodyog Sangh	Persons employed							Total
	Processing of cereals and pulses	Oil Ghani	Leather	Pottery	Carpentry	Black- smithy	Cane and bamboo	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kalyan	13	2	25	55	59	7	24	185
Ulhasnagar ..	18	4	52	31	84	16	52	257
Murbad .. ..	..	..	32	27	59	6	47	171
Shahapur .. ..	..	12	79	74	264	45	29	503
Mokhada	2	3	3	20	69	9	3	109
Jawhar	3	4	19	21	61	7	4	119
Wada	3	..	15	31	32	12	2	95
Thane	2	2	67	56	16	4	10	157
Bhivandi .. ..	..	2	32	32	109	7	131	333
Vasai .. ..	..	2	22	26	53	11	307	421
Palghar .. ..	..	1	35	51	53	16	77	233
Dahanu .. ..	..	..	5	9	29	38	57	138
Total	41	32	406	433	888	178	743	2,721

* * *

नमो भगवते वासुदेवाय

CHAPTER 6—BANKING, TRADE AND COMMERCE

INTRODUCTION

IT IS PROPOSED TO DESCRIBE in this chapter the structure and development of banking, trade and commerce in the district in their historical perspective. The chapter is divided into two parts. The first part, viz., Banking and Finance, deals with the operation of the various credit and banking institutions, while the second part, viz., Trade and Commerce, describes the direction and structure of trade and commerce. In keeping with the general economic development in the district, the banking and financial institutions as well as commercial activities have developed immensely during the last about two decades. As described in the previous chapter as well as in chapter 9 in this Volume, there has been tremendous growth of industrialization in this district. While banking and financial institutions follow industrialization, they also provide the necessary infrastructure for rapid growth of industries. It is therefore needless to say that banking and financial institutions which are a constituent part of the tertiary sector have contributed to the rapid growth of industrialization in this district.

The money-lender was probably the most important credit agency in the past who dominated the financial field till the implementation of the Bombay Money-lenders Act of 1946. The exorbitant rates of interest and the nefarious malpractices which were closely associated with the institution of money-lender were very much to the detriment of the agriculturists and landless labourers. The Agricultural Debtors' Relief Act relieved to some extent the heavy burden of indebtedness over the agriculturists, while the Bombay Money-lenders Act sought to save them from the harassment of the money-lenders. The growth of the co-operative movement during the Post-Independence period was a blessing to the agricultural and artisan population who now can depend on co-operative credit. As a matter of fact the co-operative sector provides the bulk of the institutional credit. The progress of the co-operative movement from a mere credit society to a service society is an important development in the field of finance and has therefore been dealt at length in this chapter.

Nationalisation of life insurance and banking are also very important land-marks in the financial field in this district. The nationalised commercial banks which are harnessed to the goal of economic development in keeping with the socialistic ideals, have been catering to the

credit needs of small industries, cottage industries, agriculturists and self-employed craftsmen. All these developments are described in the first part.

The second part of this chapter describes the structure and direction of wholesale and retail trade. It also gives an account of important routes of trade in the past and at present. Regulation of agricultural marketing is an important land-mark in the history of trade and commerce in Maharashtra. This has been made applicable to the various agricultural produce markets in this district as well. Unfortunately however, the regulation of agricultural marketing in this district has not been so very effective in protecting the interests of the agriculturists. This is attributable to the socio-economic conditions in the district as well as to the fact that the principal agricultural commodity, viz., rice was within the purview of the Monopoly Procurement Scheme under which private trade in rice was prohibited for some years. The scheme has been withdrawn since 1978-79. Hence the account of regulated markets and wholesale trade in agricultural produce is not so very exhaustive as in the case of other *District Gazetteers*.

SECTION 1—BANKING AND FINANCE

MONEY-LENDERS

At the time of publication of the old *Thana District Gazetteer* the banking facilities were extremely meagre. There were some classes of traders and money-lenders who used to cater to the financial needs of the people by advancing loans at exorbitant rates of interest ranging from 12 to 24 per cent even for a loan secured by pledging gold and silver ornaments. These money-lenders did not maintain proper accounts and very often exploited the poor ignorant people.

The money-lenders as a class differ from indigenous bankers. They do not accept deposits from the public, are not particular about the purpose for which the loan is taken and also do not insist upon security factors which dominate the operations of indigenous bankers. Methods of their lending are simple and flexible, and people, especially farmers, find it easy to understand and adjust themselves to the money-lender who is their easiest and nearest source of finance.

Money-lending was also a peculiar feature of the self-sufficient village economy of the past when the money-lender had a useful role to play and was generally alive to his duties and responsibilities. In many cases, however, he was known to have exploited unfairly the ignorance and circumstances of the borrower.

In the following paras is given the account of money-lenders from the old *Thana District Gazetteer* :—

“Money-lending is rarely carried on as an exclusive occupation :

it is generally combined with trade, shop-keeping, or agriculture. Here and there a wealthy landowner may advance some hundred pounds to another proprietor, and a few Vanis, Shimpis, and others make a living by borrowing £20 to £50 (Rs. 200—Rs. 500) and lending it at higher interest. But such cases are not common. The district money-lenders are confined to and include almost all savers of money. As no large capitals are embarked in usury, it is not easy to distinguish between different classes of lenders. All the towns are small, and neither in capital, caste, nor class of client, is there any marked contrast between the town and the country usurer. In the larger towns and villages the lenders are generally Maratha Vanis, Bhatias, Brahmans, and Kayasth Prabhus, and near Thana, a few Parsis, Christians. In the outlying parts, Maratha Vanis are scarcer, and rich Kunbis and Marwar Vanis are more common. Among the wild tribes in the north-west the Parsis are the chief usurers. On the whole, Brahmans, and Maratha, Gujarat, and Marwar Vanis have most of the money-lending in their hands. There is no local rule or custom binding certain classes of borrowers to deal with certain classes of lenders; but as the Marwar Vani is the most merciless, no one goes to him who can go to any one else.

“Of Gujarat Vanis the chief class are the Lad Vanis who came to Bassein from Cambay about a century ago. They began as grocers, rose to be general dealers, and are now money-lenders and land owners or mortgagees. Few of them have capital enough to carry on their dealings without borrowing. They are perhaps little less scrupulous than Marwar Vanis. But they are less vigorous and constant in pressing their claims, and are not nearly so successful in making money. The Marwar Vani, who are by far the harshest creditors, ruthlessly selling even the debtor's cooking and drinking vessels. The first great inflow of Marwar Vanis followed the liberal reduction of rents between 1835 and 1837, which by giving land a sale value drew them in numbers to the district. Since 1835 their number has continued to increase. Maratha Vani and Brahman money-lenders have no chance against the Marwar Vani. In grinding the faces of the poor he is unrivalled and all competitors go to the wall. From a small tradesman he probably exacts nine per cent a year (12 annas a month), and from a Kunbi from eighteen to twenty-four (Rs. 1½—Rs. 2 a month). Where he advances grain for food, he requires at next harvest one and a half times the amount, and if the advance is for seed twice the loan. When grain is advanced, the Kunbi's signature is generally taken in Marathi in the account book; when money is lent, a deed is taken, and the loan and deed are noted in Marwari. His one account book is written by

himself, for he can generally read and write when he comes, or if not he soon learns.

"The larger money-lenders keep a day book, *rojkind*, and a ledger, *khatevahi*. The smaller have only one book called a *baithi vahi* or *baithe khate* in which, for trifling amounts where a bond is not necessary, they take the signature of the borrower for money or grain advanced.¹

"The Government rupee is the standard in all loans. Maratha lenders generally keep the *Shak* and Gujarat and Marwar lenders the *Samvat* years²; disputes are settled by converting the time into English dates. Interest is sometimes charged for the inter-calary month when the loan is for a year in which the extra month happens to fall.³ When the money is borrowed for a term of years there is no charge for extra months. And even in yearly loans some lenders remit all interest on the inter-calary month, and others charge interest on only twenty days."

The evil practices of some of the money-lenders always attracted adverse notice. The high rates of interest charged by them, though justified in many cases by the risk involved, and greediness of some to extort money from the illiterate people by false accounts and fraud, have not merely kept large sections of agriculturists permanently in debt but have also contributed to the depression of the agricultural debtors against the money-lenders as a class. The situation further led to what is known as the Deccan Riots of 1875. It was this riot which led to the passing of the Deccan Agriculturists' Relief Act in 1879. This Act was later repealed by the Bombay Agricultural Debtors' Relief Act of 1939 which aimed at the adjustment of the old debts. The latter Act was first applied only in 1942, and that too only in a few talukas of a few districts of the State. In the light of its working in those areas, the Act was amended in 1945, and was applied to selected talukas of all districts except Bombay Suburban District, and from February 1947, it was applied to the then Bombay State. In 1947 it was once again amended to introduce radical changes, one of which was the transfer of the administration to Civil Courts. The application of the Act was restricted to debts not exceeding Rs. 15,000 in any individual case. The rate of interest in case of awards was not to exceed 6 per cent per annum or such lower rate as notified in that behalf by the State Government.

¹ *Baithi Vahi* apparently means a book whose entries remain without being copied into a ledger.

² The *Shak* year dating from A.D. 78 begins in *Chaitra* (March-April), the *Samvat* year dating from B.C. 56 begins in *Kartik* (October-November).

³ As the Hindu lunar year consists of nearly 354½ days, an extra, *adhik*, month has to be thrown in once in every three years.

Bombay Money-lenders Act, 1946: It was not till 1947 that legislation was undertaken to register money-lenders and to regulate their transactions with the borrowers. In order to check such malpractices and to relieve the agriculturists from their clutches, the then Government of Bombay Province passed an Act known as the Bombay Money-lenders Act of 1946 on the 17th September 1947. The Act required the money-lenders to obtain licences to carry on their business, to maintain proper accounts of their transactions in the prescribed form and to give prescribed returns to their borrowers and to the State. Further, it authorised the Government to regulate the rate of interest to be charged. Money-lenders as a class did not favour the passing of the Act, and there was a marked reluctance on their part to obtain licences. Consequently the number of professional money-lenders dwindled during the subsequent period.

This Act was subsequently amended, the important amendments being the introduction of Forms 4-A and 5-A and Pass Book system, provision of calculating interest on *Katmiti* system and facilities to certain classes of money-lenders for submitting quarterly statements of loans to the Registrar of Money-lenders. Further amendment was effected in 1955 by which money-lending without licence was made a cognizable offence. In 1956, special measures were adopted for protecting backward class people.

Table No. 1 gives the amount of loans advanced to traders and non-traders by money-lenders in Thane district since 1949-50 to 1974-75, while Table No. 2 gives the statistics of licensed money-lenders in the district.

Table No. 3 shows the taluka-wise number of registered money-lenders and loans advanced by them in Thane district during 1974-75.

CO-OPERATIVE MOVEMENT

The co-operative movement mainly covers the growth of agricultural credit societies, multi-purpose societies, District Land Development Bank, District Central Co-operative Bank, Urban Co-operative Banks, non-agricultural credit societies, non-agricultural non-credit societies, etc. The movement may be said to have started in Thane district in 1911, when two co-operative societies were established at Umbargaon* by the encouragement of the then local revenue officers. These societies could not function for more than a year. The year 1913 was important in the history of co-operative movement in Thane district as three agricultural societies were established during the year, one each at Maroli (in Umbargaon taluka), Umbargaon and Kelwa-Mahim (in Palghar taluka). The object in starting these co-operatives was to make

* Umbargaon is now included in Gujarat.

available to the agriculturists cheap credit and to develop amongst them a sense of co-operation, mutual help and economy. Most of the earlier co-operative societies in this district were established with these limited objects in view. During the last about 25 years co-operation has been advocated as a way of life and is looked upon as the best method of bringing about quicker progress in development of agricultural production, profitable disposal of agricultural produce and better organisation of cottage industries. The number of all co-operative societies increased to 1,851 on 30th April 1972.

The District Deputy Registrar of Co-operative Societies is in charge of the co-operative movement in the district and is assisted by two Assistant Registrars of Co-operative Societies who have territorial jurisdiction as regards all the aspects of the co-operative movement in the district. The Co-operation and Industries Officer works under the Zilla Parishad to carry out the duties regarding development of cottage industries and agricultural marketing. This officer under the Zilla Parishad is charged with the function of promotion of the co-operative principle in the important sector of betterment of the dwindling cottage industries.

Table No. 4 shows the position of co-operative societies in the district during 1916, 1921 and 1925.

The growth of co-operation in the district is mainly in the field of forest labourers' co-operative societies, fisheries co-operative societies, housing co-operative societies, salary-earners' societies, consumers stores, rice mills and marketing societies. The extent of development of the co-operative movement in the district can be judged from the fact that the amount of short-term and medium-term loans provided by Government to the societies increased from Rs. 48 lakhs in 1961 to Rs. 86 lakhs by the end of the decade.

The following statement shows the progress in various categories of co-operative societies in Thane district during the last decade (1961-62 to 1971-72) :—

Serial No.	Category	Registered societies		
		Up to 1961	Up to 1967	Up to 30th April 1972
(1)	(2)	(3)	(4)	(5)
1	Agricultural credit societies (service societies)	528	598	596
2	Co-operative lift irrigation societies .. ..	..	..	18
3	Non-agricultural credit societies	44	76	124
4	Grain societies	199	201	197
5	Purchase and sale unions	12	16	15
6	Milk societies and milk unions	9	22	37
7	Farming societies	19	30	43

STATEMENT—*contd.*

Serial No.	Category	Registered societies		
		Up to 1961	Up to 1967	Up to 30th April 1972
(1)	(2)	(3)	(4)	(5)
8	Co-operative rice-mill societies ..	4	17	19
9	<i>Gram swarajya</i> societies ..	3	3	4
10	Forest labourers societies ..	47	84	87
11	Labour contract societies ..	24	36	47
12	Consumers co-operative societies ..	62	79	90
13	Housing co-operative societies ..	42	186	344
14	Weavers societies ..	4	3	4
15	Fisheries societies ..	32	37	47
16	Industrial co-operative societies ..	83	84	137
17	Taluka supervising unions ..	11	11	11
18	Well-being society ..	1	1	1
19	Health societies ..	1	1	1
20	Transportation societies ..	3	2	2
21	Education societies ..	1	1	1
22	District industrial co-operative union ..	1	1	1
23	District <i>nira-tadgul</i> union ..	1	1	1
24	District fisheries co-operative union ..	1	1	1
25	District purchase and sale union ..	1	1	1
26	District Central Co-operative Bank ..	1	1	1
27	District Co-operative Board ..	1	1	1
28	Land Development Bank ..	1	1	1
29	Co-operative spinning mill ..	..	2	1
30	Poultry farming societies ..	..	13	14
31	Piggery societies ..	..	3	3
32	Fruit-growing societies ..	..	..	2
33	Taluka development board ..	10	9	..
34	Electric supply society ..	1	..	..
35	Labourers union ..	..	..	1
36	Other co-operatives ..	..	1	6
Total ..		1,147	1,523	1,859*

It is noteworthy that inspite of the immense growth of small industries in the Thane industrial complex, there is no industrial co-operative bank in the district.

The Co-operation department of the State Government and the Zilla Parishad contribute their might towards the expansion of the co-operative movement. The following statement shows the expenditure incurred

* The number rose to 1,986 during 1973-74.

by the Co-operation department and the Zilla Parishad since 1961 to 1972 in the district :—

Serial No.	Scheme	Expenditure incurred since 1961 to 1972
		Rs.
1	Co-operative lift irrigation	1,66,484
2	Co-operative milk schemes	1,33,562
3	Co-operative fisheries	6,17,500
4	Co-operative agricultural marketing	2,50,907
5	Agricultural produce loans scheme	25,97,637
6	Co-operative marketing	15,07,080
7	Agricultural processing societies	5,70,920
8	Co-operative farming	1,74,125
9	Labourers societies and federation	2,56,832
10	Spinning mill	36,46,600
11	Co-operative consumers societies	10,89,000
12	Co-operative industrial societies	3,60,759
13	Handloom development	40,338
14	Conversion of handlooms to powerlooms	52,000
15	Backward class societies	1,86,955
16	Forest labourers societies	6,69,600
17	Supply of consumers goods in rural areas	32,920
18	Bhoodan and gramdan societies	61,050
19	Godowns under cash programme	1,00,000
20	Co-operative poultry farming	4,00,000
21	Co-operative piggeries	8,90,875
22	Housing for industrial labourers	7,94,520
Total ..		1,45,79,664

Table No. 6 shows the position of different types of co-operative societies in Thane district during 1974-75.

District Central Co-operative Bank: The Thane District Central Co-operative Bank Ltd. was established at Thane in 1958 and has been working as a federal financing agency catering for the credit requirements of all the primary co-operatives in the district. The Zilla Parishad also transacts its financial business through this bank since 1962. The bank is the central financing agency and the principle purveyor of credit to the co-operative sector in the district. Financing of agricultural credit and marketing is however its principal function.

The liability of the members is limited and its membership consists of both co-operative societies and individuals. The funds of the bank consist of (i) share capital, (ii) reserve and other funds, (iii) deposits from societies and the general public, and (iv) loans or over-drafts from

scheduled banks. The major part of the working capital of the bank is derived from short-term deposits. The branches of this bank are allowed to accept deposits from local bodies and citizens. Besides, the Central Bank can raise loans from the Maharashtra State Co-operative Bank, Bombay, which is the apex bank. It avails of over-draft facilities from the State Bank of India as well as from the apex bank for the purpose of exchange transactions and other incidental needs.

Table No. 7 shows the statistics relating to the bank during 1966-67 to 1974-75.

The deposits of the bank which stood at Rs. 214.13 lakhs in 1965-66 increased to Rs. 306.45 lakhs in 1969-70, thus registering an increase of 43.11 per cent. The short-term advances of the bank increased from Rs. 1127.77 lakhs in 1968-69 to Rs. 1196.64 lakhs in 1969-70, while its medium-term advances in 1968-69 and 1969-70 stood at Rs. 19.55 lakhs and Rs. 23.26 lakhs, respectively. The following statement shows the comparison of deposits and advances of the District Central Co-operative Bank Ltd., Thane, in 1965, 1966, 1967, 1968 and 1969 :—

			(Rs. in lakhs)	
Year			Deposits	Advances
1965	..	..	2,14.13	1,25.19
1966	..	..	2,74.00	1,88.00
1967	..	..	2,92.61	2,20.94
1968	..	..	2,85.87	2,40.02
1969	..	..	3,06.45	2,95.33

Source.—Annual Report of the District Central Co-operative Bank Ltd., Thane, 1969.

Land Development Bank : The Primary Land Mortgage Bank was established in 1939 with a view to provide long-term finance to cultivators in Thane and Kulaba districts. Previously it had two branches, one each at Palghar (in Thane district) and at Alibag (in Kulaba district). This bank was working for both the districts, but in October 1962 a separate Land Mortgage Bank was established for Kulaba district. As per the directive of the Reserve Bank of India, the Land Mortgage Bank was re-named as the District Land Development Bank so as to make its purpose explicit in its name itself.

The membership of this bank was 2,848 in 1962 and it advanced loans of Rs. 52,000 for construction and repairs to wells, purchase of oil-engines and other land improvement purposes during the same year. The amount of loans outstanding at the end of the year was Rs. 8.60 lakhs of which Rs. 1.50 lakhs were over due. The amount of rural debentures collected during the year was Rs. 57,000 as against the allotted target of Rs. 10,000.

The District Land Development Bank did not advance any loans during 1967-68, 1968-69 and 1969-70. The membership of the bank was limited to individuals, while societies were not enrolled as members. It had only two branches and 3,442 individual members in 1969-70. Table No. 5 shows the position of the bank during 1963-64, 1965-66, 1967-68 and 1969-70. This bank went into liquidation during 1970-71.

Urban Co-operative Banks : The joint-stock banks are very often not inclined towards catering to the needs of small traders, petty industrialists, etc. They have rigid patterns of loans and advances which hardly suit the needs of the parties with smaller means. Under the circumstances, numerous persons of small means like traders, factory workers, etc., had to depend upon money-lenders. This lacuna was removed by the organisation of urban co-operative banks. There was one such banking organisation in the district in 1921.

At present (1974-75) there are ten urban credit banks in the district. These banks provide finance for trade on security of merchandise and also against the pledge of gold and silver. Table No. 8 shows the deposits and advances of the urban banks in the district during 1965-66 and from 1969-70 to 1974-75.

The total deposits of urban banks stood at Rs. 31.26 lakhs in 1966-67 which increased to Rs. 43.63 lakhs in 1972-73.

Agricultural Credit Societies : Agricultural credit societies constitute a major sector of the co-operative movement in Thane as elsewhere in India. As a matter of fact, the co-operative movement was started and flourished mainly as a credit movement. These societies have gained great importance as an instrument of the State's agrarian policy. As stated earlier, two agricultural credit societies were started in the district in 1911, the number of which went on increasing since then. The number of rural credit societies which was only three in 1913 increased to 113 in 1935-36, to 401 in 1950-51, to 495 in 1960-61 and to 566 in 1973-74.

These societies grant short-term loans for the purpose of meeting expenses on seed, manure, weeding, etc. and medium-term loans for purchase of bullock-carts, iron implements, etc. and payment of old debts as well as for works of land improvement. The duration of the medium-term loans ranges from three to five years. The loans are granted against personal security of the borrower, mortgage of immovable property or of crops as collateral security.

Besides providing credit facilities, they cater to the other needs of the cultivators. As a matter of fact, they have now been organised on the principles of service co-operatives, and are described as multi-purpose societies or *seva* societies.

The position of agricultural credit societies in 1950-51 and 1960-61 is shown in the following statement* :—

Particulars	Year	
	1950-51	1960-61
1. Number of agricultural credit societies	401	495
2. Number of members	23,317	46,860
3. Share capital (Rs. in lakhs)	6.57	19.18
4. Reserve and other funds (Rs. in lakhs)	4.37	6.46
5. Working capital (Rs. in lakhs)	22.75	76.34
6. Number of members to whom loans were advanced .. ..	....	36,830
7. Amount advanced (Rs. in lakhs)	11.54	41.15
8. Amount recovered (Rs. in lakhs)	8.84	34.55
9. Loans outstanding (Rs. in lakhs)	12.14	48.43
10. Overdues (Rs. in lakhs)	1.58	17.28

Table No. 9 gives the statistics of agricultural credit societies in Thane district during 1964-65 and from 1969-70 to 1974-75, while table No. 10 gives the statistics of primary agricultural credit societies in each taluka of Thane district during 1974-75.

Grain Societies (Grain banks): With the intention of making available to the agriculturists the required supply of seeds and to help them in acquiring the necessary stocks of grains for consumption Government started grain depots in several villages since 1939. Grain depots came to be first organised in Thane district with a view to providing credit in kind to cultivators in the backward areas, so as to enable them to raise crops.¹ But they became defunct after some time due to certain organisational defects and mismanagement. This prompted the Government to convert them into co-operative grain societies. The total number of grain depots converted into co-operative grain societies was 84 in 1953-54.² The position of these societies in the district during 1951-52 and 1952-53 is given below :—

Particulars	Year	
	1951-52	1952-53
Societies	52	66
Share-capital (in rupees)	51,593	55,045
Reserve fund (in rupees)	58,020	75,005
Government loan (in rupees)	52,277	60,574
Working capital (in rupees)	1,70,258	2,28,840

* *District Census Handbook*, Thane, 1961.

¹ *The Co-operative Movement in the Bombay State*, by K. N. Naik.

² *Thane Jilhyatil Sahakari Chalval*, V. V. Dandekar.

The number of registered grain societies was 199 in 1961 which decreased to 197 on 30th April 1972. The following statement shows the statistics relating to grain societies in the district during 1967 and 1968 :—

Particulars	Year	
	1967	1968
1. Societies	199	199
2. Members	30,197	29,841
(Rupees in thousands)		
3. Share-capital	9,88	12,59
4. Working capital	16,33	19,24
5. Profit	1,54	98
6. Loss	13	3,03

Fisheries societies : Fisheries is an important extractive industry in the district next to agriculture and it is but natural that a good many co-operatives of fishermen should be organised in the district. The first co-operative fisheries society in the district was started at Satpati in 1937. However, not even a single more society was established upto 1946. The number of these societies increased to three in 1947 and to twelve in 1948.

The following account shows the position of these societies in 1961-62 as given in the *District Census Handbook*, Thane :—

“There are 32 fishermen's co-operative societies in the district in 1960-61. Their combined membership is 14,024 ; share-capital of Rs. 2.98 lakhs, working capital of Rs. 15.01 lakhs. The societies received Rs. 3,000 as subsidy from the Government during the year. Catch value of the fish during the year is Rs. 14.75 lakhs and sales value is Rs. 15.41 lakhs. Twenty-four of these societies made a profit of Rs. 1.56 lakhs, three sustained a loss of Rs. 1,000 while the remaining five were stagnant.”

“Some fisheries societies have made remarkable progress. The Satpati Macchimar Vividh Karyakari Sahakari Society Ltd., established at Satpati, Palghar taluka, in 1944, is one of them. Besides fishing activities, the society has undertaken building of small boats. From 1947 to 1961 the society has built 66 launches and 32 boats of various sizes. In 1962-63 the society also built 8 trawlers. All the fishing boats maintained by the society for the benefit of its members are mechanised.”

The number of these societies increased to forty in 1968-69. The value of their sale of fish increased from Rs. 8,34,000 in 1968-69 to

Rs. 1,75,15,000 in 1969-70. The working capital of these societies which was Rs. 15.01 lakhs in 1960-61, increased to Rs. 124.16 lakhs in 1969-70.

Table No. 11 gives the statistics relating to co-operative fisheries societies in the district during 1966-67 and from 1969-70 to 1974-75.

During 1974-75 the turn-over of fishing by the members of the societies amounted to Rs. 154.76 lakhs, while the sale of fish through the co-operatives was Rs. 359.07 lakhs.

Government as well as the District Central Co-operative Bank Ltd. advanced loans to these societies for boats, trucks for marketing, etc.*

Under the scheme of State aid to fisheries, Government granted Rs. 6,17,500 by way of subsidy to the co-operative fisheries societies during the last decade beginning with 1961.

Co-operative Farming: The progress of co-operative farming societies is not satisfactory in this district. The farming societies in the district are of two categories, viz., joint farming societies and collective farming societies. In 1968, there were seven joint farming societies of which two were in Thane, one in Murbad and four in Vada talukas. There were twenty-two collective farming societies, of which three were in Kalyan, three in Bhivandi, two in Dahanu, one each in Murbad and Vasai, and six each in Palghar and Vada talukas. The statistical information about the farming societies in the district as in 1967, 1968 and 1974-75 is given below :—

Particulars	Unit	Year		
		1967	1968	1974-75
1. Farming societies—				
(a) Joint farming societies ..	No. ..	6	7	} 29
(b) Collective farming societies ..	No. ..	22	22	
2. Members ..	Individuals ..	N.A.	925	1,072
3. Share-capital ..	Rs. in thousands	1,10	1,26	1,72
4. Working capital ..	Do.	4,50	2,20	13,69
5. Land under command ..	Hectares ..	1,305	1,305	N.A.
6. Land cultivated ..	Do.	33.7	364.5	73
7. Loss—				
(a) Number of societies ..	No. ..	6	14	N.A.
(b) Loss ..	Rs. in thousands	31	52	N.A.

N.A. = Not available.

Lead Bank Survey Report of Thane district published by the Bank of Maharashtra in 1971 states that in 1969-70, the farming societies

* For details refer the section on State Aid to Fisheries in this chapter.

cultivated 310 hectares of land which was less than 50 per cent of the land cultivated in the previous year. A recent report of the Zilla Parishad states that there were 43 co-operative farming societies with a total membership of 1,269 in the district by the end of June 1972. They had been allotted an area of 1,600 hectares of land, of which an area of 400 hectares was actually cultivated in 1971-72. These societies got subsidy of Rs. 1,74,125 upto June 1972, from Government in order to help them.

Animal Husbandry Societies : These societies include taluka milk produce unions, primary milk produce societies, poultry farming societies and piggery societies. A dairy co-operative society was established in 1914 with a membership of 75 and share-capital of Rs. 3,500. It was however closed in 1918.¹

One cattle breeding society was formed at Makunsar in Palghar taluka, which was also closed. There were five milk supply societies as on 30th June 1961 with a combined membership of 465, share-capital of Rs. 14,000 and working capital of Rs. 36,000. The value of their sales during 1960-61 was Rs. 80,000. Table No. 12 gives the information of taluka milk produce unions, primary milk produce societies, poultry farming societies and piggery societies in the district in 1968.

There were forty animal husbandry societies with working capital of Rs. 20.87 lakhs in 1968-69 in the district.

The Greater Bombay Milk Scheme and its newly proposed wing, the Dapchhari Milk Scheme, are of immense significance for the dairy activities in Thane district. The authorities of the milk scheme encourage the dairy co-operatives in this district to supply milk at an assured price. This has given rise to a good many societies which get financial assistance for purchase of buffaloes and the necessary equipment. The value of sales of these societies was Rs. 9,72,000 in 1968-69 and Rs. 16,12,000 in 1969-70. They received a grant of Rs. 1,33,500 from Government upto 1971.

The first cattle breeding society in the district was established at Maroli and a second one at Makunsar (Palghar taluka). There were five poultry farming and piggery societies in 1969-70. The value of sales of these societies in 1969-70 was Rs. 4,89,000, while it was Rs. 3,89,000 in 1968-69.

Table No. 13 shows the statistics relating to animal husbandry societies in the district during 1966-67 and from 1970-71 to 1974-75.

The milk and milk products societies purchased milk worth Rs. 68,15,000 during 1974-75, while they sold milk valued at Rs. 78,91,000 during the same year. The live-stock societies purchased

¹ *Thane Jilhyatil Sahakari Chalval*, V. V. Dandekar.

live-stock at Rs. 2,25,000 during 1974-75 and sold the same at Rs. 3,00,000.

Agricultural Processing Societies : There were four agricultural processing societies in 1961, of which three were paddy husking societies and one was a banana preservation society. Their combined membership was 496, share-capital Rs. 1.36 lakhs and working capital Rs. 1.87 lakhs in the same year. The total membership of the paddy husking societies was 386 individuals and 46 societies. Of these three societies, only one was functioning and it husked 18,300 Bengali maunds of rice during 1961-62. The Vasai-Arnala *sukeli* processing society had 64 members and its production was 86 Bengali maunds during the year.* There were two co-operative hand pounding societies in 1960-61 in the district, which were financed by the Maharashtra State Khadi Board.

The number of co-operative rice mills which was only three in 1960-61 increased to nineteen in 1970. The agricultural produce processed by the co-operatives during 1972-73 amounted to 47,048 m. tonnes valued at Rs. 30,21,000.

Table No. 14 shows the statistics relating to agricultural processing societies in the district during 1961-62 and from 1964-65 to 1974-75.

The State Government contributes Rs. 20,000 towards the share-capital of each co-operative rice mill. Under the scheme of State Aid to Industries, Government granted the subsidy of Rs. 51,71,000 during the last decade beginning with 1961 to the agricultural processing societies in the district.

Salary-earners Societies : These societies are an important type of urban credit societies. Generally, the salary-earners find it difficult to obtain credit from institutional agencies since they have no security to offer. The agency of salary-earners societies fills in this lacuna. They are based on thrift. Every member is required to pay his monthly subscription which ensures compulsory saving on his part. Besides supplying credit to the needy members, some of them run fair price shops for the benefit of the community. The first society of this type was opened in the district in 1916.

The number of these societies increased to eighteen in 1953. Table No. 15 shows the statistics relating to the salary-earners societies including the factory workers societies in the district during 1964-65, 1966-67 and from 1969-70 to 1974-75.

Forest Labourers Co-operative Societies : According to 1961 Census about 30.29 per cent of the total population of the district

* *District Census Handbook*, Thane, 1961.

consisted of *adivasis* who are extremely poor and live in the forest areas. Not before long, the *adivasis* were exploited by unscrupulous forest contractors who used to pay them sub-human wages. With a view to eliminating the middlemen and to promote the economic welfare of *adivasis* through the co-operative efforts, Government decided to allot various forest coupes at certain prices to forest labourers co-operative societies under the guidance of recognised social service organisations such as *Adivasi Seva Mandal*. Government also appointed a separate committee for the amelioration of the *adivasis*, which was charged with the functions of organising and assisting co-operative societies of forest labourers, co-ordinating their working, providing for their supervision and planning for exploitation of forest crops and regeneration of forest areas as well as for starting allied industries by or on behalf of co-operative societies.¹ Besides, these societies have also undertaken social and educational activities. There is a Federation of Forest Labourers Co-operative Societies functioning from Palghar. The first *Adivasi Seva Mandal* in the district was founded in 1940.

The number of forest societies affiliated to the Federation was 31 in 1959-60 which increased to 45 in June 1969. The societies had a membership of 7,332 and their share-capital and working capital were Rs. 1.55 lakhs and Rs. 12.00 lakhs, respectively, during the year. They received Rs. 69,000 as loans and Rs. 1.28 lakhs as subsidy from Government upto 1961. The value of forest produce extracted by them during 1960-61 was Rs. 49.29 lakhs. The number of affiliated societies increased to 86 in 1970-71.

The entire forest area in the district has been divided into three divisions for purposes of allotment to forest labourers societies :— (i) Dahanu—41 societies, (2) Thane—26 societies and (3) Shahapur—19 societies. An amount of Rs. 1.60 lakhs was to the credit of Employees' Provident Fund at end of September 1970. About 600 employees were benefited by the scheme. During 1969-70 the societies at Kasa, Amgaon, Bormal and Talasari operated fair price shops for the benefit of the *adivasis*. The societies at Kainad, Kondhan, Shigaon, Tilher, Darshet-Umbarpada, Dhardla, Medhe, Bhatane, Nimboli and Ambesari maintained godowns to stock foodgrains to be distributed to *adivasis* in the rainy season. The amount spent on welfare schemes for the *adivasi* labourers was Rs. 97,850 during 1969-70. The Federation also associated itself with other activities such as affecting compulsory savings from the workers and organising educational facilities for which it spent about Rs. 8,500 in 1969-70.

¹ *The Co-operative Movement in the Bombay State*, K. N. Naik.

The following statement shows the statistics relating to forest labourers societies in the district during 1967, 1968 and 1971 :—

Particulars	Year		
	1967	1968	1971
1. Societies	84	86	86
2. Members	11,357	12,394	15,000
3. Share-capital (Rs. in thousands) ..	3,53	3,54	N.A.
4. Government share (Rs. in thousands) ..	1,59	1,83	N.A.
5. Working capital (Rs. in thousands) ..	21,84	23,46	37,00
6. Profit—			
(a) Number of societies	55	57	56
(b) Amount (Rs. in thousands) ..	8,55	4,90	5
7. Loss—			
(a) Number of societies	18	26	30
(b) Amount (Rs. in thousands) ..	17	46	1
8. Coupes received	190	220	N.A.
9. Sale value (Rs. in thousands) ..	57,71	70,47	N.A.

N.A. = Not available.

These societies get financial assistance from the Government of India for the first three years after their registration. Under this scheme each society gets Rs. 1,200 for management expenses, Rs. 1,500 for social welfare activities and Rs. 3,000 as Government contribution towards share-capital.

Labour Contract Societies: In pursuance of the policy of progressive elimination of middlemen in the sphere of labour contracts Government has directed to give preference to labour contract societies in respect of public works department works valued at less than Rs. 20,000 each. Government has also authorised the Joint Registrar for Industrial Co-operatives and Village Industries to sanction loans up to Rs. 5,000 each to serve as working capital of labour contract societies. Under the Government policy works in the public sector costing up to Rs. 50,000 can be given to these societies without any tender. Labourers societies and their Federation received Rs. 2,56,800 as subsidy from Government during the decade since 1961.

There were sixteen labour contract societies in the district in 1961. The combined membership of these societies was 755 during the year. Their share-capital and working capital stood at Rs. 3,000 and Rs. 69,000, respectively. Of these sixteen societies, eight were defunct while six earned a profit of Rs. 8,000 and three suffered a loss of

Rs. 9,000 during the year.* The number of such societies increased to 36 in 1971 and total membership increased to 2,000. During 1971 they completed thirty-five works costing about Rs. 13,00,000. Twelve societies made profit of Rs. 20,000, and nineteen suffered a loss of Rs. 28,000 during the year. Table No. 16 gives the statistics relating to labour contract societies in the district during 1967, 1968 and 1971.

Urban Credit Societies : Though the Co-operative Act of 1904 contemplated the organisation of both rural and urban societies, the Government of India laid special emphasis on the organisation of rural credit societies. In spite of the emphasis on rural credit societies some urban credit societies were organised. It was with the recommendation of MacLagan Committee that the development of the urban co-operative movement received a great impetus all over India, especially in Bombay and Madras provinces. Small traders, artisans, factory workers, small salaried classes of people in urban areas organised co-operative urban credit societies to escape from the exploitation by money-lenders.

The Devrukh Brahmins Co-operative Society, Umbargaon,¹ established in 1914, was the first co-operative urban credit society in the district especially for providing credit to Devrukh Brahmins. The second caste society, the Catholic Co-operative Credit Society Ltd., was established at Vasai in 1918 and the third caste society, Brahmins Co-operative Credit Society Ltd., Thane, was established in 1928.

The Criminal Tribes Settlement Co-operative Credit Society was established at Ambarnath in 1928. There were seven urban credit societies, four in Kalyan, and one each in Dahanu, Jawhar and Palghar talukas as on 30th June 1953. Their total membership was 3,616 and share-capital and working capital amounted to Rs. 1,64,127 and Rs. 4,89,177, respectively.

The total number of these societies which was only seven in 1953 increased to twenty in 1971-72 and decreased to thirteen in 1974-75. Their position for 1971-72, 1972-73 and 1974-75 is given below :—

URBAN CREDIT SOCIETIES IN THANE DISTRICT

Year		Number of societies	Number of members (individuals)	Share-capital (Rs. in thousands)	Reserve and other funds (Rs. in thousands)	Working capital (Rs. in thousands)
(1)		(2)	(3)	(4)	(5)	(6)
1971-72	..	20	6,126	2,97	1,48	8,58
1972-73	..	12	6,179	2,98	1,49	9,69
1974-75	..	13	6,484	3,55	1,94	10,25

* *District Census Handbook*, Thane, 1961.

¹ Due to certain changes in boundaries, now Umbargaon taluka is included in Gujarat.

The societies advanced loans of Rs. 7.66 lakhs during 1974-75.

Handloom Weavers' Societies : Cottage industries like handloom weaving are of great importance in the economy of Thane district from the point of view of providing employment to a vast number of unemployed population. The first handloom weavers' co-operative in this district was established at Bhivandi on 5th May 1927.¹

With a view to facilitate buying improved tools and appliances, trained artisans are given special financial assistance by the Government. Weavers' societies are the most important type of industrial co-operatives in Maharashtra State. As there was a great demand for handloom products during the last two decades, the weavers' societies could make remarkable progress in the State. Unfortunately however the co-operative movement has failed to bring in its fold the handloom industry in this district. According to the 1961 Census there were three handloom weavers' co-operative societies. The total membership of these societies was 1,361, and share-capital and working capital was Rs. 68,000 and Rs. 4,10,000, respectively during 1960-61. The total number of looms was 3,969 of which 3,610 were registered in the co-operative field and these societies produced goods worth Rs. 52,000 during the same year.

Table No. 17 shows the statistics relating to handloom weavers' co-operative societies during 1966-67 and from 1969-70 to 1974-75.

Co-operative Spinning Mills : There are now (1974-75) two co-operative spinning mills in the district. The first mill, the Vishwabharati Co-operative Spinning Mill, was established on 24th April 1965. During 1971 Government contributed Rs. 44,80,000 to this mill. Another mill was established during 1973-74 with a membership of 1,079. The following statement shows the statistics relating to these mills during 1968-69 and from 1971-72 to 1974-75 :—

Year	Number of societies	Number of members	Share- capital	Reserve and other funds	Working capital
			Rs.	Rs.	Rs.
1968-69 ..	1	389	36,12,000	1,00,000	1,55,73,000
1971-72 ..	1	399	63,57,000	58,66,000	3,32,22,000
1972-73 ..	1	401	63,20,000	71,85,000	2,31,88,000
1973-74 ..	2	1,079	79,70,000	1,13,15,000	4,13,60,000
1974-75 ..	2	1,174	1,11,90,000	1,32,33,000	4,45,66,000

Co-operative industrial estates : There were six co-operative industrial estates in the district in 1971. Their total share-capital and working capital stood at Rs. 16 lakhs and Rs. 23 lakhs, respectively, in 1971.

¹ *Thane Jilhyatil Sahakari Chalval*, V. V. Dandekar.

Government had contributed Rs. 2.00 lakhs towards the total share-capital of Rs. 4.00 lakhs. Of the six estates, three were defunct, two earned a profit of Rs. 1.2 lakhs and four suffered a loss of Rs. 20,000. The Maharashtra Industrial Development Corporation built nine industrial estates in the district, of which four have been handed over to industrial co-operative societies. Besides the above, two industrial estates have been proposed in the co-operative sector at Vasai and Palghar. They are expected to be established in the near future in consultation with the Maharashtra Industrial Development Corporation.

Other industrial co-operative societies: These societies include those organised by dyeing and printing works, oil *ghanis*, cane and bamboo works, tanning works, leather works, carpentry and smithy, metal works, pottery works, etc. According to the Census of 1961 there were 76 other industrial co-operative societies in the district in 1960-61, of which two were organised by dyeing and printing works, seven by oil *ghanis*, seven by cane and bamboo works, one by tanning works, ten by leather works, eleven by carpentry and smithy workers, two by metal and three by pottery workers. The rest of them comprised co-operatives of miscellaneous artisans. The total membership of all the industrial societies was 2,967, and their share and working capital stood at Rs. 8.40 lakhs and Rs. 16.57 lakhs, respectively, during 1960-61. The combined value of production of these societies was Rs. 3.49 lakhs and the sale value was Rs. 3.66 lakhs during the same year. The number of these societies which was 76 in 1960-61 increased to 117 in 1968-69 and decreased to 100 in 1972-73. The following statement shows the position of these societies in the district during 1971-72, 1972-73 and 1974-75:

Particulars			1971-72	1972-73	1974-75
Societies	..	..	95	100	95
Members—					
(a) Societies	..	..	164	164	174
(b) Individuals	..	..	3,876	12,985	8,174
Share-capital (Rs. in thousands)	..		3.89	7.25	13.53
Reserve and other funds (Rs. in thousands)	..		12.41	13.49	16.30
Working capital (Rs. in thousands)	..		33.75	33.74	66.09

Consumers' Co-operatives: The origin of consumers' co-operatives can be traced to the World War I. But most of them had only a temporary existence and between the two World Wars there were hardly any in existence. The rising trend of prices and the growth of the co-operative movement encouraged the establishment of consumers co-operatives after 1951-52. The fast growth of urbanisation and

industrialisation also contributed to the increase of consumers' societies in towns such as Thane, Kalyan, Bhivandi, Ambarnath, etc., during the last about two decades. There were approximately 105 consumers' societies in the district in 1953-54.¹ Their total membership was 12,600 and working capital was Rs. 22 lakhs during the year. These societies had purchased goods worth Rs. 165 lakhs during 1952 and their sale amounted to Rs. 176 lakhs during the same year. After 1952 Government relaxed controls which resulted in the closure of many societies. Hence the number of these stores declined from 105 in 1953-54 to 62 in 1960-61. In June 1961, there were sixty-two consumers' stores having forty-six branches, sixteen of which were more or less defunct. The total membership of these societies was 9,577, share-capital and working capital was Rs. 4.28 lakhs and 12.93 lakhs, respectively. During the year 1960-61 their sale amounted to Rs. 96.21 lakhs. Thirty-two of them made a profit of Rs. 1.43 lakhs and fourteen suffered a loss of Rs. 27,000 during the year. The following statement shows the statistics relating to consumers' stores in the district :—

Year		Number of societies	Members		Share- capital	Reserve and other funds	Working capital
			Societies	Individuals			
(1)		(2)	(3)	(4)	(5)	(6)	(7)
					Rs.	Rs.	Rs.
1967-68	..	86	121	22,224	11,10,156	11,44,111	47,22,385
1971-72	..	65	37	24,874	12,84,000	13,89,000	62,33,000
1972-73	..	68	37	26,111	13,48,000	14,58,000	65,46,000
1973-74	..	75	37	26,735	1,22,82,000	14,71,000	77,57,000
1974-75	..	86	26	37,891	1,68,20,000	17,14,000	90,79,000

Value of purchases and sales of the consumers' stores in the district was Rs. 4,07,33,000 and Rs. 5,92,92,000, respectively, in 1973-74 and Rs. 9,74,20,000 and Rs. 10,17,59,000, respectively, in 1974-75.

Co-operative Housing Societies : The immense growth of urbanisation and industrialization in industrial areas in the district increased the intensity of the acute housing problem from 1960. An average man found it extremely difficult to get accommodation worth the name in Thane, Kalyan, Dombivli and other towns. This encouraged citizens to form co-operative housing societies in these towns. Government financial help also stimulated the growth of housing societies during the last about twenty years.

¹ *Thane Jilhyatil Sahakari Chalval*, V. V. Dandekar.

The first co-operative housing society was established at Thane in 1930 and was followed by another one at Thane in 1944 and a third one in 1948. The total number of such societies increased to 42 in 1953. Their total membership was 2,527 and share-capital was Rs. 8,48,705 during the year.¹ According to the 1961 Census there were forty co-operative housing societies in the district on 30th June 1961, of which twenty-three were organised by persons belonging to backward classes. Their total membership was 1,487, share-capital and working capital was Rs. 3.89 lakhs and 11.97 lakhs, respectively. They had built 106 independent houses valued at Rs. 1.60 lakhs and 241 tenements valued at Rs. 4.69 lakhs up to the end of 1960-61.

The number of housing societies increased to 598 and their total membership to 17,341 in 1974-75. Their share-capital was Rs. 53,12,000 while their working capital was Rs. 7,38,14,000 during the same year. They constructed 2,064 tenements during 1974-75. Table No. 18 shows the statistics relating to the co-operative housing societies in the district during 1966-67 and from 1970-71 to 1974-75.

There were twenty-three co-operative housing societies of persons belonging to the backward classes in 1961. The total membership of these societies was 678, share-capital of Rs. 20,000 and working capital of Rs. 2.34 lakhs during the same year. Their number increased to 32, while the total membership increased to 1,173 in 1971. Government provides loans up to 75 per cent of the cost of construction. Under this scheme these societies received Rs. 1,86,900 during the last decade. The Harijans, Navbaudhas and Nomadic tribes are given Government loan of 50 per cent and subsidy of 25 per cent of the cost of construction, while *adivasis* and *vimukta jatis* are given loan and subsidy of 37.5 per cent each of the cost of construction.

Lift Irrigation Society : There is one lift irrigation society in the district which provides irrigation facilities to the member-cultivators. This society receives grant from the Zilla Parishad. Its membership was 121 individuals during 1972-73. Its share-capital amounted to Rs. 24,000, while its working capital was Rs. 25,000 during the same year.

Other Societies : Besides the above-mentioned societies, there was one co-operative education society at Wada having a membership of 58 and share-capital and working capital amounting to Rs. 2,000 and Rs. 60,000, respectively, one co-operative dispensary at Vasai with a membership of 146, one well-being society at Vasai with a membership of 366 and two co-operative transportation societies at Thane with a membership of 437 during 1967-68.

¹Thane Jilhyatil Sahakari Chalval, V. V. Dandekar.

Co-operative Supervising Unions¹: According to the recommendations of the Provincial Co-operative Conference held in 1929 co-operative supervising unions were established all over the Bombay Presidency. Accordingly, the Bhiwandi and Kalyan Taluka Co-operative Supervising Union was established in 1929.² The number of these unions increased to four in 1953-54.

The supervising unions give direction, advice and assistance to the agricultural credit and multi-purpose societies, supervise the working of societies affiliated to them. They also help these societies to get loans from the District Central Co-operative Banks. They secure their deposits by obtaining grants from Government, by collecting contributions and donations. During 1972 there were eleven co-operative supervising unions in the district. Their total membership was 766 in 1968-69, which decreased to 711 in 1969-70. Their total income amounted to Rs. 4,32,000 and expenditure to Rs. 3,28,000 in 1967-68.

District Co-operative Board: The District Union Board which was started in 1937 with the intention of powerful control and inspection of the supervising unions in the district, was converted into a District Co-operative Board in 1949 for propagating the co-operative spirit among the people and to give training to the officials of co-operative societies and to direct the work of supervising unions and other societies. The total membership of the Board stood at 425 including eleven supervising unions and 158 individual members in 1970-71.

STATE AID TO INDUSTRIES

With a view to encouraging and developing small-scale and cottage industries the Government of Maharashtra gives financial assistance to these industries under various schemes, besides the State Aid to Industries Rules, 1935. Under these schemes, loans are granted to industries for (1) construction of buildings, godowns, ware-houses, wells, tanks, etc., (2) purchase of land for buildings, (3) plant and machinery, and raw materials.

Besides, financial assistance to cottage industries is also obtained through the All India Handloom Board, the All India Khadi and Village Industries Commission, the Maharashtra State Khadi and Village Industries Board and other agencies.

Financial assistance to cottage and village industries is granted in Thane district under the following schemes :—

(1) *Grant of loans and subsidies to co-operative societies for purchase of tools and equipment and for working capital:* Under

¹ The co-operative supervising unions have been discontinued since 1974.

² *Thane Jilhyatil Sahakari Chalval*, V. V. Dandekar.

the scheme preference is given to those who are trained in Government peripatetic schools or institutions recognised by Government. The subsidy is given for purchase of tools and equipment, construction of godowns and sheds, management expenditure, handloom co-operative societies, while loans are granted for purchase of tools and equipment and for construction of godowns.

Table No. 19 gives the details about the loans and subsidy distributed under the scheme for different purposes in the district from 1962-63, 1965-66 and 1968-69.

(2) *Grant of loans and subsidy to backward class artisans for the purchase of tools and equipment*: The scheme was sanctioned for the improvement of backward class artisans by granting financial assistance up to Rs. 2,000 for the purchase of tools and equipment. For trained backward class artisans the loan is free of interest, and for untrained artisans half the amount of loan is treated as free of interest.

Table No. 20 furnishes the statistics relating to loans and subsidy given in Thane district to industrial co-operative societies of backward classes from 1962-63 to 1968-69.

(3) *Special grant-in-aid to nomadic tribes*: Under the scheme subsidy is given to nomadic tribe artisans through Zilla Parishad.

During 1963-64 an amount of Rs. 500 was distributed by way of subsidy which increased to Rs. 1,000 in 1964-65.

(4) *Financial assistance to small-scale and cottage industries under the State Aid to Industries Rules of 1935*: The loans under this scheme are distributed through Zilla Parishad for construction of buildings, godowns, ware-houses, wells, tanks and other works necessary for industrial operations as well as for purchase of land. Financial help is also extended for purchase and erection of machinery, plant and appliances, raw material as well as a contribution towards working capital.

The State Aid to Industries Rules of 1935 were amended in 1955 with a view to liberalise the policy in order to give a phillip to the development of cottage and small-scale industries.

Table No. 21 indicates the amounts of loans granted to the different industries and to unemployed goldsmiths in Thane district between 1961-62 and 1972-73.

In addition to the above schemes, financial assistance to small-scale industrial units is distributed through the Industries Office, Thane District, by way of subsidy on consumption of electric power to the small-scale industrial units registered under the subsidy rules. There are twenty units availing of the said facility. The amount disbursed on this account was Rs. 4,611 in 1966-67, Rs. 5,793 in 1967-68, Rs. 4,000

in 1968-69, Rs. 1,555 in 1969-70 and Rs. 4,788 in 1970-71. Besides, applications from small-scale industries are recommended to commercial banks as well as to the Maharashtra State Financial Corporation.

SMALL SAVINGS

Small savings movement started in India in 1945 with the intention of mopping up the surplus purchasing power in order to control the inflationary forces in post-war years. The Planning Commission later adopted it as an important means to finance expenditure on capital schemes included in the five-year plans. The Government have been trying to intensify small savings as a mass movement aimed at cultivating a national habit of thrift. The following categories of investments have been classified as small savings :—

- (1) Post Office Savings Certificates.
- (2) Twelve-Year National Plan Savings Certificates.
- (3) Fifteen-Year Treasury Savings Deposit Certificates.
- (4) Fifteen-Year Annuity Certificates.
- (5) Cumulative Time Deposit Scheme.

The total gross collection of small savings in the district was Rs. 3.18 crores during 1969-70, while the total net collection was Rs. 0.75 crore. Net savings were the highest in Thane taluka (Rs. 32.10 lakhs) and they were the lowest in Talasari taluka (Rs. 0.62 lakh). The statement showing gross and net collection of savings from 1st April 1969 to 31st March 1970 in Thane district is given below :—

Serial No.	Taluka	Target	(Rs. in lakhs)	
			Total collections	
			Gross	Net
(1)	Thane	25	97.83	32.18
(2)	Kalyan	15	44.82	6.05
(3)	Ulhasnagar	15	65.11	16.41
(4)	Murbad	2	4.50	2.07
(5)	Shahapur	2	9.28	1.80
(6)	Wada	2	6.85	1.58
(7)	Bhivandi	7	16.08	4.81
(8)	Palghar	7	19.77	2.66
(9)	Vasai	8	22.14	0.73
(10)	Dahanu	8	22.21	2.73
(11)	Jawhar	2	5.81	2.28
(12)	Mokhada	1	1.89	1.03
(13)	Talasari	1	1.87	0.62
Total ..		95	3,18.16	74.95

Post Office Savings Bank : This is an important agency for mobilising savings. During the year 1969-70, there were 240 post offices in the district, which had savings bank deposits worth Rs. 4.93 crores. Even in some of the urban centres where the commercial banks have their branch offices, post office savings continue to be substantial. For example, in Thane, Kalyan and Ulhasnagar, the post office savings bank mobilised Rs. 115.48 lakhs, Rs. 77.72 lakhs and Rs. 100.72 lakhs, respectively. The average deposit per post office was Rs. 1.99 lakhs. The amount of deposit per account worked at Rs. 345.

The following statement shows the target and the gross and net collection of all the small savings schemes in Thane district from 1965-66 to 1973-74 :—

(Rupees in lakhs)				
Year	Target	Collection for the year		
		Gross	Net	
1965-66	68	3,45	1,43	
1966-67	85	3,33	1,17	
1967-68	95	3,12	1,21	
1968-69	95	2,85	67	
1969-70	95	3,18	74	
1970-71	100	3,60	1,20	
1971-72	100	5,28	2,51	
1972-73	125	5,14	2,36	
1973-74	162.5	4,78	3,71	

Table No. 22 shows the collection of each category of small savings in Thane district during 1973-74.

INSURANCE

The Life Insurance Corporation of India was established by the Government of India on 1st September 1956, after the passing of the Life Insurance Corporation Act of 1956. Life insurance business was thus nationalised and the Corporation became the only agency for carrying out life insurance business in the whole of India. General insurance which includes fire, marine, accident and other insurance has also been nationalised. Most of the former insurance companies and societies which used to transact general insurance business have now been brought under the nationalised set-up.

The total business of life insurance proposed and completed during the period 1959 to 1974-75 in Thane district is given in the following statement :—

LIFE INSURANCE STATISTICS REGARDING THANE DISTRICT

Year	Business proposed		Business completed		Number of agents at the end of the year
	Number of proposals	Sum proposed in lakhs of Rs.	Number of policies	Sum assured in lakhs of Rs.	
1959 ..	7,561	2,20	6,280	1,90	N.A.
1962-63 ..	11,555	3,85	10,834	3,59	713
1965-66 ..	11,822	4,89	11,191	4,62	916
1968-69 ..	10,071	5,75	9,596	5,44	836
1970-71 ..	9,845	6,76	9,323	6,30	824
1971-72 ..	N.A.	N.A.	13,061	9,25·13	N.A.
1972-73 ..	N.A.	N.A.	13,266	9,87·32	N.A.
1973-74 ..	N.A.	N.A.	13,289	11,91·60	N.A.
1974-75 ..	N.A.	N.A.	13,194	11,87·78	N.A.

N.A. = Not available.

MAHARASHTRA STATE FINANCIAL CORPORATION

The main function of this corporation is to provide loans to small, medium and large scale industries so as to encourage the development of industries in Maharashtra. The corporation has a branch office located at Thane which provides financial aid to the industries in the district. The operations of the corporation for the years 1968-69, 1969-70 and 1970-71 are summarised in the following statement :—

(Rs. in lakhs)

Category of borrowers	As on 31st March 1969		As on 31st March 1970		As on 31st March 1971	
	Number of accounts	Amount	Number of accounts	Amount	Number of accounts	Amount
Industries—						
(i) small and medium scale.	23	39·73	28	42·93	186	52·05
(ii) Large scale ..	6	34·96	5	41·06	4	19·60
(iii) Other (Not specified).	..	..	5	1·86	14	7·02
Total ..	29	74·69	38	85·85	204	78·67

There has been a consistent growth in the amount advanced to industries and the number of accounts have increased from 29 in 1969 to 204 in 1971. There was also a substantial increase in the number of accounts as well as in the amount advanced to small and medium scale industries during the period from April 1970 to March 1971. Both the number of accounts and the amount advanced to small and medium scale industries have increased from year to year during the period under review while the amount of advances to large-scale industries as on 31st March 1971 were considerably less than those a year ago.

STATE INDUSTRIAL AND INVESTMENT CORPORATION OF MAHARASHTRA

The main function of this corporation is to stimulate a balanced economic development by encouraging growth of industries in the State. This corporation has no branch office in the district. The amount of advances granted by the corporation to small, medium and large scale industries in the district during 1968-69, 1969-70 and 1970-71 is given in the following statement :—

Category	(Rupees in lakhs)		
	Advances		
	As on 30th March 1969	As on 30th March 1970	As on 30th March 1971
Large-scale industries ..	18.50	1,14.50	25.94
Small-scale industries ..	6.99	21.82	1,26.54
Total ..	25.49	1,36.32	1,52.48

NATIONAL SMALL INDUSTRIES CORPORATION

The National Small Industries Corporation has been established for providing modernised machinery to small industries on a hire purchase basis and for advancing long-term loans to be repaid in reasonable instalments. This corporation had provided eight machines worth Rs. 8.62 lakhs to small-scale industries in the district in 1969-70.

STATE AID TO AGRICULTURE

Even before the establishment of British rule in India, the practice of granting financial assistance to agriculturists was in existence. Under

this practice financial assistance was extended especially during the famine years. The British Government however gave a legal status to the prevalent system. The agriculturists riots that broke out in several districts of the Deccan also helped to expedite the legislation in that regard.

The British Government passed two Acts, viz., the Land Improvement Loans Act of 1883 and the Agriculturists' Loans Act of 1884 to provide the legal frame-work under which *tagai* loans were to be granted to the needy agriculturists. The former Act was broadly concerned with the long-term finance while the latter accommodated persons with short-term financial needs.

With a view to improving the agricultural conditions it was decided after Independence to extend the scheme of granting financial aid still further. The system of distribution of *tagai* loans, therefore, was changed and the co-operative societies, the revenue office and the Zilla Parishad were authorised to give financial assistance to agriculturists. The amount of assistance also was substantially increased so as to cover a larger coterie of clients.

The *tagai* loans advanced in the district during 1967-68 amounted to Rs. 27,200 for wells, Rs. 27,500 for other land development and Rs. 21,400 for purchasing bullocks. Loans of Rs. 13,72,260 were provided to the agriculturists for purchasing seeds, chemical fertilizers and pesticides on short-term loan basis in the district during 1971-72. Loans amounting to Rs. 25,775 were provided to backward classes and *adivasis* for constructing wells and land improvement in the same period. Aid of Rs. 1,06,150 was given to the farmers for purchasing 253 oil engines and for constructing 93 *Vasant Bandharas* during the last decade (1962-72). The Zilla Parishad had purchased twelve small tractors worth Rs. 2,00,842 and supplied them to the farmers on hire purchase basis to be repaid in easy instalments. During 1972-73 *tagai* loans of Rs. 15,78,337 were distributed among the farmers in the district, of which Rs. 1,10,200 were for wells, Rs. 1,57,994 were for land improvement and Rs. 1,80,143 were for purchasing bullocks.

Small Farmers Development Project: The aim of the project is to bring the potentially viable small farmers into the main-stream of economic development, firstly by helping them in improving the productivity of their land and secondly, by securing for them some supplementary income from appropriate subsidiary occupations. The project is an experiment in supervising credit to be obtained from the existing financial agencies. This scheme provides a frame-work to the financial agencies for overcoming the shyness in lending to the small farmers. It is also expected that the beneficiaries can use the credit thus provided effectively and raise themselves to a viable status. The

farmers have been identified as those whose land-holding ranges from one hectare to three hectares.

The scheme has been worked out for the following purposes :— land development, minor irrigation, bullocks and implements, intensive cultivation, dairy, poultry, godowns, etc. The finance necessary for the implementation of the various aspects of the scheme is provided by District Land Development Bank, District Central Co-operative Bank and the Primary Co-operative Credit Societies. The scheme also proposes consideration of the following concessions while providing the finance :— for land development, 85 per cent recovery of the long-term loans of the village to be relaxed; for minor irrigation, 25 per cent subsidy; for bullocks and implements, 25 per cent subsidy for purchase of bullocks and 50 per cent for implements; for intensive cultivation, 50 per cent subsidy for seeds, 50 per cent for fertilizers and 25 per cent for pesticides, respectively; for poultry 50 per cent subsidy for establishing a chick-rearing centre and for godowns, 50 per cent subsidy.

The Page Yojana is being implemented in the district in the area under Murbad and Shahapur Panchayat Samitis since 14th August 1969. The total expenditure incurred on this scheme except that for establishment amounted to Rs. 14,82,402 upto 31st March 1972.

Agricultural Finance Corporation : The functions of this corporation include participation in the rural electrification programme and other schemes required to be undertaken for overall agricultural development. The medium-term advances granted by the corporation during 1970 amounted to Rs. 9,000 which helped encouraging 37 irrigation wells in the district. Two schemes involving a commitment of Rs. 14.5 lakhs for energising 604 irrigation wells were awaiting final sanction by the commercial banks in 1971.

The details of financial aid given to agriculture by the Thane Zilla Parishad are given in table No. 23.

STATE AID TO FISHERIES

Thane is the most important district in the State stretching over 110 kilometres which provides an enormous scope for marine fishery. In addition, rivers, tanks and ponds also afford a large water-spread area for inland water fishing. The marine fishery, however, predominates over inland fishery in the district, and nearly 64 per cent of the persons engaged in fishing industry work in marine fishery.

Loans are granted by Government under the State Aid to Industries Rules of 1935 to needy fishermen for mechanisation of fishing equipment and accessories. Loans are also given to fisheries co-operative societies and private undertakings for such development projects as

establishment of ice and cold storage plants and purchase of trucks and launches for transport of fish. The loans are recovered in 27 equal instalments spread over a period of three years. The months of June, July and August are excluded while computing the interval between instalments.

Fishermen are granted subsidy on the specific condition that they form co-operative societies. The amount of subsidy is generally 33 to 50 per cent. The repayment of the loan commences three months after the loan is disbursed. The loan is repayable in equal monthly instalments over a period of five years.

The following statement shows the relevant figures for Thane district for 1968-69 :—

Purpose	Quantity	Non-redeemable share-capital	Grants	Loans
(1)	(2)	(3)	(4)	(5)
		Rs.	Rs.	Rs.
Boats	26	64,575	6,000	1,33,396
Boats with decks	4	14,000	....	38,800
Decking of Boats .. ..	....	....	....	....
Provision of engines	26	4,65,990	20,392	1,74,967
Launches	6	7,500	....	13,167
Total	62	5,52,065	26,392	3,60,330

Co-operative ice cold storage factories are located at Satpati, Palghar and Arnala. Moreover during 1968-69 a loan of Rs. 2.02 lakhs and non-redeemable share-capital of Rs. 3.12 lakhs were sanctioned for the factories at Satpati, Palghar and Vasai. Loan for production of fish given by the District Central Co-operative Bank to 27 societies amounted to Rs. 27 lakhs. Percentage of recovery was 53.

It is proposed to operate forty boats for catching pomfrets, which are to be operated by the members of co-operative societies and groups affiliated to the federation. The federation will be responsible for all the business, *i.e.*, for marketing and also to recover from the groups (or societies) the loans obtained by them from Government and Agricultural Refinance Corporation. It seems that the commercial banks can also plunge into financing of fishing industry, if the federa-

tion is ready to take the responsibility of recovery of loans. The financial provision of the scheme is given below :—

(Rupees in lakhs)			
(1) Group share	...	...	2.00
(2) Federation's share	...	...	1.01
(3) Non-redeemable share-capital	...	...	15.95
(4) Bank loans	....	...	45.78
			<hr/>
			64.74
			<hr/>

JOINT-STOCK COMPANIES

In Thane district there are two types of joint-stock companies, the private limited companies and the public limited companies.

The first private limited company in the district, viz., Kalyan Electric Supply Company, was established in 1929 but was later on dissolved. From 1929 to 1950 the rate of growth of companies was rather slow. The rate of their growth increased from 1950 to 1960 but did not keep pace with the growth of commercial activity in the district. But from 1960 onwards the growth of private joint-stock companies was quite rapid and during the sixties as many as twenty-three new companies were established in the district.

In 1970, there were thirty-five private limited companies registered in Thane district. Of the thirty-five companies, eight were transacting import and export business, six were textile undertakings, six were manufacturing machinery, electrical materials and other hardware equipments, two were stationery and printing concerns, four were chemical and pharmaceutical companies, six were chit funds and one each engaged in plastic industry, oil manufacturing and advertising business.

PUBLIC LIMITED COMPANIES

The Companies Act of 1956 describes the public limited company as one which has a right to transfer its shares and debentures. There is no limit to the number of share-holders and it can invite the public to subscribe for any share in or debentures of the company. The primary object with which companies start functioning is to engage themselves into some form of productive activity or business and thereby earn profit. These companies acquire capital to meet their varied requirements from various sources.

The funds required may be obtained from internal or external sources. Internal sources represent balance of profit left after all the

expenses, taxes and dividends are paid *plus* accumulated reserves. External resources may be classified into stock capital, loans and accounts payable.

The number of public limited companies in Thane district was smaller than that of private limited companies. In 1964-65 there were only four public limited companies, most of which were established in the post-war period.

Table No. 24 shows the number of joint-stock companies in Thane district during the last few years.

During 1969-70 there were 51 joint-stock companies in Thane district. The number of partnership of these companies was 165, while their authorised capital, subscribed capital and paid up capital amounted to Rs. 2,50,52,000, Rs. 30,11,830 and Rs. 22,74,830, respectively during the same year.

BANKING

The account of currency systems in the eighteenth and nineteenth centuries in the district as given in the *Thana Gazetteer* of 1882 is given below :—

“**Currency**: Under the Marathas (1740-1818) about one-third of revenue was received in Surat and Broach rupees, and about two-thirds in Chandor (Nasik) rupees. This continued till 1826 when the Surat rupee was made the only legal tender and used in the Government accounts, care being taken that the change in the currency caused no increase in the pressure of the land assessment. By Act XVII of 1835, the Company's rupee was declared legal tender, and in 1843 in Panvel, Salsette, Kalyan, Taloja, and Bhiwandi, it had entirely superseded the local currencies, which continued to about twenty-five per cent in Bassein, six per cent in Kalyan and Murbad, and eight per cent in Mahim and Nasrapur. Since the 1st June 1878 the circulation of the Surat rupee has been stopped. In the north of the district till within the last ten years, a few Broach rupees continued in use at two per cent below the Imperial rupee.

Before 1830 the copper coins were Satara *shivrais* or *Chhatrapatis* and *dhabhus*, which exchanged at from seventy-four to eighty for the rupee. In 1830 British copper pice were declared legal tender at the rate of sixty-four to the rupee. Six years later (1836) in Salsette and Karanja the circulation of the old copper coin ceased. But in other parts of the district the use of the new coin was almost entirely confined to land revenue, customs, and Government payments. The pice was inferior to the *shivrai* in metal and in weight. An attempt to buy in the old coin premium failed by the inflow of

coins from the Holkar, Sindia, Nizam mints. Besides being intrinsically more valuable, the pice was popular with the money-changer because of the profits which its fluctuations in value yielded him. It was popular with the consumer, because, while he got seventy-six to eighty old pice and only sixty-four new pice for a rupee, in retail payments for vegetables or grain the old pice was considered as valuable as new pice. Nor did the retail dealer lose much as he could buy with old pice almost every article he wanted. In the Collector's opinion the new pice could oust the old pice only by making payment in the new pice compulsory, and making it panel to deal in the pice. The change, he wrote, may cause some loss, but it is a measure of state and the people wonder why the new pice are not at once forced into use. In 1843 the receipt of old pice was prohibited in every transaction to which Government was a party; and licence-holders were instructed to receive no copper except the net coin. From this time the new pice gradually took the place of the old pice, till, in 1859, the proportion of the old and new coins in circulation was as two to five. Except in Salsette and the petty division of Uran in Panvel, the old copper coins are still (1881) in use, and in Bassein to the exclusion of the British coin. They exchange for silver at rates varying from $16\frac{1}{4}$ to $16\frac{3}{4}$ annas the rupee, the lower rate being that generally allowed by petty dealers."

The bank offices in the district provide the usual and ancillary services including safe deposit vault facilities at several centres. Special schemes have also been formulated by the public sector banks to help the weaker sections of the society and to provide finance to the priority sectors such as agriculture, small-scale industries and exports.

Commercial Banks : The history of banking in the district can be traced to 1945 in which year the first banking office of the Canara Bank was established at Kalyan. As a matter of fact, the nationalisation of the Imperial Bank of India which resulted into the establishment of the State Bank of India in 1955 was the most important event which led to the growth of banking in the district. The branches of the State Bank of India were established at Thane, Kalyan and Palghar on 1st July 1955, 6th October 1955 and 29th December 1958, respectively. Prior to the opening of the branches of the State Bank of India two branches of the Bank of Maharashtra Ltd. were established at Thane and Bhiwandi in 1952 and 1954, respectively. Thus banking offices and their business expanded during the fifties only. During the decade 1951-60, fifteen branch offices of different banks were established. During the sixties a number of branch offices of different commercial banks as well as the State Bank of India were opened in different parts of the district. During the decades 1960-1970,

57 branches of different commercial banks were established in the district. The number increased to 85 in September 1970. The average population per branch office fell from 38,000 in 1967 to 25,000 in 1970. The corresponding figures of average population per branch office for the State were 50,000 and 37,000, respectively. Thus, the comparison between the State as a whole and the district shows that this district is better served by the commercial banks. The following statement shows the comparison between the State as a whole and the Thane district for the years 1967, 1969 and 1970 :—

	Number of offices			Average population per office		
	December 1967	June 1969	September 1970	December 1967	June 1969	September 1970
Thane District ..	51	67	85	38,000	31,000	25,000
Maharashtra State	936	1,118	1,430	50,000	44,000	37,000

A list of branch offices of the commercial banks in the district, as on 20th March 1970, is given below :—

Centre	Name of Bank	Date of establishment
(1) Thane ..	State Bank of India ..	1st July 1955
	State Bank of India ..	11th October 1967
	Bank of Maharashtra ..	20th December 1952
	Bank of Maharashtra ..	18th December 1963
	Bank of Maharashtra ..	22nd October 1966
	Bank of India ..	14th May 1963
	Bank of Baroda ..	20th June 1964
	Central Bank of India ..	16th October 1957
	Central Bank of India ..	20th April 1969
	Dena Bank ..	26th May 1965
	Indian Overseas Bank ..	29th March 1963
	Union Bank of India ..	16th June 1958
	National and Grindlays Bank Ltd.	8th April 1963
(2) Kalyan ..	State Bank of India ..	6th October 1955
	Bank of Maharashtra ..	19th November 1956
	Bank of India ..	15th May 1968
	Bank of Baroda ..	7th August 1969

Centre	Name of Bank	Date of establishment
	Canara Bank ..	.. 10th October 1945
	Central Bank of India	.. 16th October 1961
	Union Bank of India	.. 2nd February 1959
	Sangli Bank ..	.. 27th December 1965
	United Western Bank	.. 27th December 1964
(3) Ulhasnagar ..	State Bank of India ..	.. 28th January 1964
	Bank of India ..	.. 30th April 1969
	Bank of Baroda ..	.. 9th April 1969
	Canara Bank ..	.. 31st May 1957
	Canara Bank ..	.. 26th February 1969
	Central Bank of India	.. 16th November 1969
	Punjab National Bank	.. 28th July 1968
	Union Bank of India	.. 19th July 1965
	United Commercial Bank	.. 17th June 1968
(4) Ambarnath ..	State Bank of India ..	.. 2nd December 1966
	Bank of Maharashtra	.. 24th March 1969
	Canara Bank ..	.. 24th April 1962
	United Western Bank	.. 21st February 1965
(5) Dombivli ..	Bank of Maharashtra	.. 19th September 1966
	Canara Bank ..	.. 23rd November 1960
	Syndicate Bank ..	.. 17th May 1969
	United Western Bank	.. 15th August 1960
(6) Bhiwandi ..	State Bank of India ..	.. 28th January 1958
	Bank of Maharashtra	.. 7th October 1964
	Central Bank of India	.. 16th October 1961
	Union Bank of India	.. 16th August 1960
(7) Palghar ..	State Bank of India ..	.. 29th December 1958
	Dena Bank ..	.. 22nd August 1969
(8) Dahanu ..	State Bank of India ..	.. 23rd March 1959
(9) Vasai ..	State Bank of India ..	.. 31st March 1959
	Bank of Maharashtra	.. 18th October 1965

Centre	Name of Bank	Date of establishment
(10) Jawhar ..	State Bank of India ..	.. 29th May 1967
(11) Murbad ..	State Bank of India ..	.. 8th November 1965
(12) Shahapur ..	State Bank of India ..	.. 27th December 1964
(13) Wada ..	State Bank of India ..	.. 30th April 1968
(14) Badlapur ..	Bank of Maharashtra Union Bank of India	.. 27th December 1968 .. 21st October 1967
(15) Kopri ..	Bank of Maharashtra	.. 24th April 1969
(16) Virar ..	Bank of Maharashtra	.. 27th January 1965
(17) Turbhe ..	Bank of India ..	.. 6th January 1969
(18) Gholwad ..	Bank of Baroda ..	.. 6th March 1969
(19) Majiwada ..	Bank of Baroda	.. 3rd March 1969
(20) Masnoli ..	Bank of Baroda ..	.. 24th July 1969
(21) Agashi ..	Canara Bank ..	.. 17th July 1968
(22) Mohone ..	Canara Bank ..	.. 6th November 1959
(23) Kulgaon ..	Canara Bank ..	.. 16th November 1959
(24) Kalwa ..	Canara Bank ..	.. 21st August 1969
(25) Katemanivali ..	Canara Bank ..	.. 29th November 1968
(26) Bhayandar ..	Dena Bank ..	.. 24th February 1966
(27) Chinchani ..	Dena Bank ..	.. 23rd August 1969
(28) Mahim ..	Dena Bank ..	.. 21st August 1969
(29) Sirgaon ..	Dena Bank ..	.. 3rd May 1969
(30) Boisar ..	Union Bank of India	.. 16th August 1960
(31) Kapurbavadi ..	Union Bank of India	.. 21st December 1967
(32) Manikpur ..	Union Bank of India	.. 18th November 1968
(33) Shahad Camp ..	Union Bank of India	.. 13th December 1965

The total deposits with the branch offices of the commercial banks in the district stood at Rs. 17.79 crores on 31st December 1967 which increased to Rs. 22.06 crores, and to Rs. 27.10 crores on 31st December 1968 and 31st December 1969, respectively. During 1966 the net increase in deposits was to the tune of Rs. 4.27 crores while during 1970 it was Rs. 5.04 crores. The total advances of the commercial banks in the district were Rs. 4.90 crores on 31st December 1967 which increased to Rs. 6.76 crores and to Rs. 10.97 crores on 31st December 1968 and 31st December 1969, respectively.

The statistics of deposits, advances and deposit-credit ratio of the commercial banks in the district are given in the following statement :—

(Rs. in crores)				
		31st December 1967	31st December 1968	31st December 1969
Deposits .. ..	..	17.79	22.06	27.10
Advances .. ..	..	4.90	6.76	10.97
Deposit-credit ratio ..	..	27.54	30.64	40.48

The nationalisation of fourteen eminent banks by the Government of India in June 1969 was by far the most important event in the commercial and economic life in the district as in the entire country. These banks are charged with the function of helping the national efforts towards ushering an era of rapid economic growth within the frame-work of a socialistic pattern of society. They are supposed to expand banking business to the nook and corner of the country-side and to cater to the needs of the weaker sections of the society, small industries, self-employed persons and artisans who were not supposed to be credit-worthy in the past. The most important thing about these banks is that they are directed to provide agricultural credit which they did not undertake prior to nationalisation.

Following nationalisation of major commercial banks, a committee to evolve a co-ordinated programme for ensuring the setting up of adequate banking facilities in the under-banked districts of the country was appointed by the Reserve Bank of India. The committee recommended the setting up of lead bank for each under-banked district. The Bank of Maharashtra has been assigned the role of lead bank for Thane district. The more specific functions of the lead bank in the district may be spelt out as under :—

(1) surveying the resources and potential for banking development in the district ;

(2) surveying the number of industrial and commercial units and other establishments and firms which do not have banking facilities and depend mainly on money-lenders and increasing their owned resources through the creation of surpluses from additional production finances from the banking system ;

(3) examining facilities for marketing of agricultural produce and industrial production, storage and ware-housing space and the linking of credit with marketing in the district ;

(4) surveying the facilities for the stocking of fertilisers and other agricultural inputs and the repairing and servicing of equipment ;

(5) recruitment and training of staff, for offering advice to small borrowers and farmers in the priority sectors which may be covered by the proposed credit insurance schemes ;

(6) assisting other primary lending agencies ; and

(7) maintaining contacts and liaison residually with Government and *quasi*-Government agencies.

It has, however, been made clear that the lead banks should have no monopoly of banking business in the district assigned to them. The bank assigned the lead role is thus expected to act as the consortium leader, and after identifying through surveys, areas requiring branch expansion and areas suffering from credit gaps, it should invite the co-operation of other banks operating in the district for opening branches as well as for meeting credit needs.

SECTION II—TRADE AND COMMERCE

Thane district has a natural advantage of being in proximity to Bombay which is by far the most developed centre of trade and commerce in India, and is one of the biggest harbours in the country. Thane is a connecting link between Bombay and the rest of India. The Central as well as the Western Railway which start from Bombay, pass through the district. This district has a coast-line of about 113 km. Besides, the highways starting from Bombay traverse through this district to northern, eastern and southern India. The south-west area of this district has developed into an industrial belt which may be regarded as a developmental axis of the Bombay region. Thane district thus occupies a unique position in the commercial field.

EXTENT OF EMPLOYMENT

Trading activities provide employment to a considerable number of persons in the district. The number of workers engaged in trade and commerce in the district as classified in the Census of 1971 is given in table No. 25.

CHANGES IN PATTERN OF TRADE

Considerable changes have taken place in the pattern, composition and organisation of trade in Thane district during the last few decades. The early pattern of trade was organised as a part of the partly self-sufficient economy then existing. The means of transport and communications were inadequate and consequently, needs of the people were adjusted in such a way that only goods locally produced were consumed. Only betel-nuts, tobacco, sugar, cloth, etc. were imported and rice, coconuts, dried fish, salt and forest produce were exported. The volume of trade with outside areas was much smaller than at present. In keeping with the increase in trade, the number of agencies connected with it has also gone up. With the improvement in

the means of transport and communications, trade is no longer confined to local areas. Numerous goods are exported to distant places. Imports from distant markets have increased immensely. Banking institutions are to be found in most of the towns which make finance available to the traders.

Regulation of markets through agricultural produce market committees which was non-existent up to 1958 is an important landmark in the organisation of agricultural marketing in the district. At present the principal agricultural produce markets at (1) Murbad, (2) Kalyan, (3) Bhivandi, (4) Palghar, (5) Shahapur and (6) Vasai are brought under the purview of the Maharashtra Agricultural Produce Marketing (Regulation) Act of 1963. The principal commodity regulated in these markets is paddy. Co-operative societies have also emerged as a great force in the marketing of agricultural produce. They compete with the other general commission agents in *adat* business which results in assuring better prices to the cultivators. The main object of these societies is to secure fair prices for the members' produce and to supply agricultural requisites at reasonable rates.

TRADE ROUTES

Besides water communication through the Vaitarna river and Vasai creek, Sopara had two land-routes, one north-east by Saivan and Vajrabai along the left bank of the Tansa river to the Thal pass and Nashik, and another south-west by Kaman, through Bhiwandi and Kalyan by the Malsej *ghat* and Nana *ghat* to Junnar in Pune district and to Paithan in Aurangabad. Both these routes were important from the commercial point of view from ancient times till the construction of the present Bombay-Agra road. The other routes of trade in the district during the past led from Kalyan to the Kusr *ghat* and the Bor *ghat*. Inscriptions and traces of steps and rock-cut chambers and cisterns show that as far back as the first century before Christ, much trade was done through the Nana pass which was easy and safe. And the cave remains at Kondana in Kolaba, Jambrug and Ambivli in Thane, and at Karla, Bhaja and Bedsa in Pune, show that the Bor pass was a much-used route between 100 B.C. and A.D. 600, one of the most prosperous periods of the Thane history. The important land route from Sanjan (A.D. 600-1200) might have been up the Damanganga valley through the Chirai, Mahaja and Pimpri passes to Baglan and Khandesh.

In the eleventh century there was a high road or *rajapath*, that ran by Bhandup and a second highway which rose to importance again in the sixteenth century when Vasai was the chief centre of trade. Of Portuguese road-making traces remain in the bridges at Bokirva between Sopara and Saivan and at Poisar near Goregaon.

The Bombay-Thane road was constructed in 1803, which was followed by the causeway between Sion and Kurla in 1805. The route from the Vaitarna to Damanganga was excellent in 1818. During the same period some of the leading routes across the Sahyadri, by the Pimpri, Malsej, Nana, Bhimashankar and Kusur passes, though much out of repairs showed signs of having once been kept in order. In 1826, cart-road led from Thane to Surat which was usable even in the rainy season. Besides, there were routes from Bhiwandi north-east by Khardi, Kasara, and the Thal *ghat* to Nashik and from Kalyan a road ran east by Murbad and the Malsej *ghat*, 178.61 km. to Sirur, 104.65 km. to Junnar and 299.46 km. to Aurangabad. Another road ran south-east by Badlapur, Nasrapur and the Kusur pass, 120.75 km. to Pune.

Present routes : Thane occupies an enviable position as regards trade-routes. The trunk routes of the Central as well as Western Railways originating from Bombay pass through this district. These routes have connected the trade centres in the district with the markets all over the country. The Bombay-Pune-Madras, the Bombay-Bhusawal-Delhi and the Bombay-Nagpur-Calcutta routes of the Central Railway have afforded direct communication to the important markets in Maharashtra as well as eastern, southern and central India. The Bombay-Baroda-Delhi route and the Bombay-Ahmedabad-Viramgaon route which emanates from the former have made direct transport facility available to entire north India as well as to Gujarat and Rajasthan.*

An interesting side-light on the commercial prosperity of the Thane region is the importance of transit trade. Immense commercial traffic from Bombay to the rest of India passes through Thane district. Kalyan which is one of the biggest railway junctions has a very big marshalling yard for goods traffic coming from and going to various parts of the country.

Besides railways, the important trade-routes traversing through this district are : (1) Bombay-Agra road, (2) Bombay-Pune-Bangalore road, and (3) Bombay-Ahmedabad-Delhi road. The Bombay-Agra national highway is the most important artery of traffic to northern and eastern Maharashtra as well as to upper India. The Bombay-Pune-Bangalore national highway is another artery leading towards the south and the Bombay-Ahmedabad-Delhi national highway serves the commercial traffic to Gujarat, Rajasthan and northern India. Besides these arterial roads, there are feeder roads which serve the needs of transport from the interior areas in the district. A more detailed description of the various roads is given in Chapter 7.

* Details about all the railway routes are given in chapter 7 in this Volume.

The following statistics show the loading and unloading of goods at different railway stations in Thane district during 1969-70 :—

Railway station	(Weight in tons)			
	Loading		Unloading	
	Number of wagons	Weight	Number of wagons	Weight
(1) Ambarnath ..	4,217	863.4 (+9.5)*	6,000	1,200 (+6.0)*
(2) Mumbra ..	252	56.5	....	....
(3) Badalapur ..	12	2.7	158	37.3
(4) Dombivali ..	....	....	122(a)	6.3
(5) Kalyan ..	3,748	749.6	6,036	1,207.2
(6) Kasara ..	4	0.7	4	0.7
(7) Asangaon ..	54	8.4	335	68.7
(8) Titwala ..	25	2.7	93	23.7
(9) Khardi ..	79	12.7	....	....
(10) Saphala ..	1,198	90.3 (+0.5)*	48	8.2 (+7.1)*
(11) Bhoisar ..	4,284	394.9 (+1.1)*	287	52.3 (+3.3)*
(12) Bhayandar ..	1,838	415.4	237	51.3
(13) Mira Road ..	1,206	292.1	7	6.5
(14) Virar ..	326	70.6	687	91.9
(15) Vasai Road ..	1,549	60.7	846	174.8
(16) Dahanu Road ..	7,362	492.2	1,123	194.6
(17) Palghar ..	9,838	634.0	1,377	204.3
(18) Thane ..	3,975	1,348.5	11,369	2,273.8
Total ..	39,967	5,491.4 (+11.1)	28,729	5,601.6 (+16.4)*

Source.—Survey Report of Thane District, by Bank of Maharashtra.

* In small package.

(a) including small package.

This district has a coast-line, about 113 km. in length, where there are few minor ports and navigable creeks which mainly facilitate the transportation of goods by country-crafts from the nearby ports on the western coast. The minor ports include Dahanu, Sawate, Tarapur, Kelwa, Mahim, Manor, Dantivare, Vasai, Bhayandar, Bhivandi and Thane. These ports mainly serve the needs of local traffic as well as fishing operations and are well connected to the mainland by roads

and railways. The goods traffic originating and terminating at Dahanu, Arnala and Thane ports is given below* :—

				(In tonnes)		
Port				Imports	Exports	Total
Dahanu	..	..	..	733	12,145	12,878
Arnala	..	..	..	729	89,346	80,075
Thane	..	..	..	85,116	....	85,116

IMPORTS

During the past century the chief articles of imports in the district were iron, kerosene oil, food-grains, tiles, Moha flowers, groceries, betel-nuts, betel-leaves, tobacco, dried cocoa-kernels, cloth, clarified butter, oil, oil-cake, sugar, coconut oil, hardware, glassware, furniture and paper. Iron and kerosene oil were imported from Bombay by local merchants both by rail and water. Millet was brought from Bombay, Gujarat, Kathiawar, Cutch and Deccan by local merchants. Wheat was imported chiefly from Surat, Broach, the Deccan and the Central Provinces. The Deccan produce was brought into the district for sale generally by Deccan and Bombay merchants. Sesamum was brought from Bombay, Gujarat, Kathiawar and the Deccan.

In the past Panvel was a great centre of wholesale trade which is now included in Kulaba district due to the changes in administrative divisions.

Now-a-days the chief articles of import in Thane district comprise groceries, hardware, metal-ware, betel-nuts, sugar, cloth and other consumers goods which mainly come from Bombay. Wheat, pulses, millets and other food-grains come chiefly from Bombay, Gujarat, the Deccan and the Central Provinces. Edible oil comes from Gujarat and diesel from Bombay. These goods are sold on cash payment in towns as well as in rural areas. Industrial raw materials, appliances and chemicals are mainly imported from Bombay.

As there is a regular local train services from Bombay to Kasara and Karjat on the Central Railway and between Bombay and Virar on the Western Railway a large number of persons daily go to Bombay and make many purchases there. Such purchases consist mainly of cloth, ready-made clothes, stationery, cutlery and crockery articles, drugs and medicines, fine qualities of footwear, cosmetics and toilet articles, gift articles, etc. These purchases are, however, restricted to personal or domestic requirements and therefore, are not in considerable quantities,

* Survey Report of Thane District, by the Bank of Maharashtra.

EXPORTS

The main commodities exported from the district are chemicals, radio-sets and transistors, electrical appliances, textiles, textile machinery, ready-made clothes, cosmetics, luxury articles, machinery spare parts, live-stock, salt, rice, grass, timber, fire-wood, plantains, vegetables, dry fish, etc. Most of the articles are largely sent to Bombay. Bhayandar, Belapur and Juchandra are known for the manufacturing of salt which is exported in large quantities to Bombay and the Deccan. Bhiwandi is well-known for the production of rice. At Agashi dried plantains (*sukeli*) are prepared and sent to Bombay. It is noteworthy that plantains are also exported to foreign countries. Bhiwandi rice and vegetables are carried in trucks and goods trains to the whole-sale markets of Byculla and Dadar.

The following paragraphs describe the direction and mode of export trade of principal commodities :—

Rice: Paddy is the most important crop in the district. Bhiwandi, Shahapur, Palghar and Dahanu talukas together accounted for 46 per cent of the total area under paddy. For the district as a whole, the area under paddy accounted for 71 per cent of the total area under foodgrains and 46 per cent of the gross cropped area in the year 1969-70.¹

The out-turn of rice in the district during 1967-68 was 2,51,472 m. tonnes.² Approximately 50 per cent of the rice is consumed locally in the district and the rest is exported to Bombay and other neighbouring districts. Shahapur, Murbad, Bhiwandi and Palghar are the regulated markets where the transactions in paddy and rice are done on a large scale. The turn-over of trade in paddy and rice at the regulated markets in the district during 1973-74 is given in table No. 26.

Forest produce: The forests of Thane are in close proximity of Bombay, a big consuming centre. Nearness to Bombay has made these forests revenue-yielding. Teak and other timbers are exported to Bombay. Round timber is exported in large quantities to Saurashtra.

Minor forest products from this district are bamboo and grass which are mainly exported to Bombay.

The important forest depots are at Vasai, Dahanu, Sawte, Khardi, Kasara, Atgaon, Manor, etc. The important markets for forest produce in the district are Kalyan, Bhiwandi and Thane.

Vegetables and fruits: The agricultural produce in the district has a ready market in Greater Bombay. The increasing population of

¹ Survey Report of Thane District, by Bank of Maharashtra.

² Socio-Economic Review and Statistical Abstract of Thane District, 1968-69 and 1969-70.

Greater Bombay has assured a market to the produce from Thane. This district provides fresh vegetables and fruits to the people in Bombay in large quantities. Vegetables are grown mainly in Dahanu, Palghar, Vasai and Thane talukas. The vegetables exported to Bombay are :—brinjal, lady's fingers, *val*, *vatana*, tomato, little gourd (*tondli*), bottle gourd (*dudhya*), snake gourd (*padval*), bitter gourd (*karle*), smooth gourd (*ghosale*), *red pumpkin* (*tambada bhopala*), *alu*, *chakwat*, *chavli*, coriander, fenugreek (*methi*), *math*, *palak*, water melon (*kalingad*), etc. These vegetables are carried in trucks and trains to the wholesale markets of Byculla and Dadar in Bombay.

Banana, mango, *chicku*, *bor*, *jambhul* and *karvand* are the fruits which are grown in the district and exported to Bombay. Vasai bananas are famous all over Maharashtra for their taste and durability, while Gholwad and Dahanu have earned a reputation for *chickus*.

Fish : Thane is one of the most important districts of the State as far as fisheries are concerned. It has a coastal belt stretching over 110 kilometres which provides vast scope for marine fishery. In addition, rivers, creeks, tanks and ponds also afford a large water-spread area for inland water-fishing.

The important marine centres are Dahanu, Bordi, Popharan-Uchheli, Navapur, Murabe, Satpati, Datiware, Arnala, Vasai and Uttan. Extensive fishing activities are carried over nine months from September to May.

The commercially important varieties of fish which are available in large quantities in sea and creek waters are *Saranga*, *Halwa*, *Darha*, *Rawas*, *Ghol*, *Koth*, *Bombil*, *Kolumbi*, *Kolim*, *Shingala*, *Wam*, *Mandeli*, *Mushi*, *Pakat*, *Wagli*, *Bhing*, and *Kalu*. About 60,000 metric tonnes of fish worth about Rs. 2·10 crores are caught annually along the district coast.

Majority of fish caught is transported by trucks and trains to Bombay for sale. Most of the fishing villages are connected with Bombay by road and railway. Cold storage plants are being established at Satpati, Palghar and Arnala.

Salt : Salt is also an important article of export, which is manufactured on a large scale at Vasai, Bhayandar, Belapur and Juchandra. It is exported not only to Bombay but also to other parts of Maharashtra as well as India. Vasai is the main centre from where salt is exported to various places in large quantities.

REGULATED MARKETS

Realising the need for establishment of properly regulated markets the Government enacted the Bombay Agricultural Produce Markets

Act in 1939. Though this Act was in force in Bombay State since its enactment, there was no regulated market in this district till the establishment of the market committee at Bhiwandi in 1958. The above-mentioned Act was replaced by the Maharashtra Agricultural Marketing (Regulation) Act of 1963 which came into force from 1967. Under provisions of the new Act sale and purchase of the regulated commodities is controlled by the respective market committee comprising representatives of agriculturists, traders, co-operative societies and local authorities and Government nominees. The Committee is composed of members elected from among the constituencies of farmers and traders, and the nominated members comprise the Assistant Registrar of Co-operative Societies, Mamlatdar of the concerned taluka and a representative of local self-government bodies. There is a majority of elected members in the committee. The market committee is responsible for the effective supervision and management of the respective markets and sub-markets. It can acquire, purchase or sell property and possessions. The market committee is required to acquire or purchase land for the functioning of the markets efficiently. Government grants loans for such purposes. First an elaborate survey has to be undertaken by the marketing staff for the purpose of exploring the possibilities of regulating markets under the Act.

Sale and purchase of the regulated commodities within a certain radius of the market-yard is banned by rules. Business transactions are to be held on the market premises only. The price of commodity brought into the market is settled by open auction or by open agreement, and sales under cover are prohibited. No deductions from the agreed price of consignment are allowed except for any authorised trade allowance. Weighment is done usually by licenced weighmen in the premises of the market-yards. Though all the transactions are done under the supervision of the market committee the buyers sometimes circumvent the supervision over the settlement of prices which results into losses to the farmers. Payments are made in cash.

Prior to the regulation of markets, the buyers and their commission agents used to make numerous deductions from the sales proceeds on account of a multiplicity of market charges, viz., *dharmadarya*, *goshala* and temple charges, *kasar*, *tut*, etc. These charges are prohibited now. The authorised market charges, at present, include market cess, commission and weighment charges.

The regulated markets in this district at present are : (1) Murbad, (2) Kalyan, (3) Bhiwandi, (4) Palghar, (5) Shahapur and (6) Vasai. There are also eight sub-markets, three under Shahapur market, viz., Kinhavali, Khardi and Dolkhamb, three under Murbad, viz., Dhasai, Saralgaon and Mhase and two under Bhiwandi viz., Padghe and

Asanoli. The development of regulated markets has been very slow in this district. Three markets, viz., Shahapur, Murbad and Bhiwandi, were established in 1958, Kalyan market in March 1959 and the rest two viz., Palghar and Vasai were established in July and September 1963, respectively. Thane, Dahanu, Talasari, Mokhada, Wada and Jawhar are the talukas in which the regulation of agricultural marketing has still not taken place. It is however proposed to bring these talukas within purview of the Act of 1967.

Shahapur : Shahapur is an important regulated market in the district and the commodities regulated are rice and paddy. It was established on 16th December 1958 and commenced functioning since 1st December 1960. There are also three sub-markets under Shahapur market, viz., Khardi, Kinhavali and Dolkhamb. The market-yard at Shahapur covers an area of about 2.428 hectares, while the sub-markets at Khardi, Kinhavali and Dolkhamb have no permanent market-yards. They carry on the business in rented premises in the brisk season.

The Shahapur market-yard has a big shed and office premises constructed at a cost of Rs. 40,000. Paddy and rice are the only commodities transacted in the principal as well as sub-market yards. A total of 74,657 quintals of paddy valued at Rs. 49,46,677 arrived at these centres during 1969-70 ; 74,125 quintals, valued at Rs. 51,52,700 during 1970-71 ; 55,015 quintals, valued at Rs. 37,35,533 during 1971-72 and 83,100 quintals, valued at Rs. 5,82,000 during 1972-73. Besides, 56,800 quintals of rice valued at Rs. 6,36,000 also arrived in this market-yard during 1972-73. The scientific ware-housing or grading facilities are not available at this market. Traders store their commodities in their own godowns. Grading of the commodities is done by the representatives of traders. Rice, purchased under the Monopoly Procurement Act, is exported to Bombay or to other places according to the Collector's orders. The average price of paddy and rice during 1971-72 is shown in the following statement :—

Commodities					Grade	Average price per quintal
						Rs.
Paddy	..	..	..	..	A	74
					B	69
					C	58
Rice	..	..	..	..	A	103
					B	98
					C	89
					D	81

The income of the market committee amounted to Rs. 18,478 in 1971-72, while the expenditure came to Rs. 8,350 during the same year. The institutional finance is made available to the traders in this market by the Thane District Central Co-operative Bank Ltd.

In the beginning about sixty traders were participating in the market transactions, but after the Government monopoly procurement system only co-operative societies are allowed to transact their business in the market. Now, there are only five licensed co-operative societies which are authorised to procure rice and paddy on the market-yard.

The trade of gum, *apta* leaves and *tendu* leaves could also be brought under the purview of the regulated market. This would enable *adivasis* who collect the above-mentioned commodities to get better prices and good remuneration for their work.

The turn-over of trade in paddy and rice at Shahapur regulated market is given in table No. 27.

Bhiwandi : Bhiwandi is the biggest regulated market in the district. The Agricultural Produce Market Committee, Bhiwandi, came into existence on 25th January 1958. The principal market-yard is located at Shelar and the sub-market-yards are located at Padghe and Asanoli. The market-yard at Shelar covers an area of about 1·820 hectares of land which is rented. The market-yard is located very close to the Bombay-Ahmadabad National Highway. The sub-market-yard at Padghe covers an area of about 1·012 hectares of land located on the side of the Bombay-Agra National Highway which was purchased by the committee in 1962. The sub-market-yard at Asanoli covers an area of about 23 acres and 32 gunthas of land which is provided by the State Government.

Under the monopoly procurement and levy system, the entire marketable paddy produce is purchased by the State Co-operative Marketing Federation Ltd., Bombay. The Federation had authorised two agencies in 1970-71 and three in 1971-72 in Bhiwandi taluka. This has resulted into a considerable decline in the turn-over of trade at the market-yard.

The total income of the market committee amounted to Rs. 19,685·95 in 1969-70, while the expenditure came to Rs. 14,681·12 in the same year.

The turn-over of trade at Bhiwandi market during 1968-69 to 1974-75 is shown in table No. 28.

Murbad : The regulated market at Murbad was established on 28th January 1959, and commenced functioning since 24th December 1960. The principal market-yard is located at Murbad and the sub-market-yards at Dhasai, Saralgaon and Mhase. The market-yard at Murbad covers an area of about 2·023 hectares of land. The sub-yards at Dhasai,

Saralgaon and Mhase are located in rented premises. Paddy and rice are the principal commodities regulated in the market which arrive from the neighbouring villages and talukas. The market committee spent an amount of Rs. 1,04,500 on providing amenities. Besides, godowns have also been constructed at a cost of Rs. 30,000. The total of 85,411 quintals of paddy, valued Rs. 57,22,575 and 60,263 quintals of rice, valued Rs. 6,47,731 were transacted in the market-yard during 1971-72. Standardisation and grading of produce is not done at this market. The Government controlled prices of paddy and rice at Murbad market during 1971-72 are shown in the following statement :—

Commodity					Grade	Price per quintal
						Rs.
Paddy	..	..	..	..	A	72
					B	66
					C	62
					D	58
Rice	..	..	..	..	A	103
					B	98
					C	89
					D	81

The income and expenditure of the market committee amounted to Rs. 20,000 and Rs. 12,000, respectively, during 1971-72, while the surplus amounted to Rs. 8,000 during the same year.

Prior to the introduction of the monopoly procurement of paddy and rice more than fifty traders were doing their business in the market-yard. During 1973-74 there were two co-operative societies and four co-operative processing societies which had been authorised to procure paddy and rice as agents of the Maharashtra State Co-operative Marketing Federation. All the business which was transacted in the market-yard is now undertaken on behalf of the Maharashtra State Co-operative Marketing Federation. The monopoly procurement and levy system have improved the weighing and storage system in the market-yard.

Table No. 29 shows the turn-over of trade in paddy and rice at Murbad regulated market.

Palghar : The Agricultural Produce Market Committee, Palghar started functioning since 1966-67. During 1966-67, 1967-68 and 1968-69 only paddy was regulated in this market while rice was brought under regulation in 1969-70.

Table No. 30 gives the turn-over of trade at this market in 1966-67, 1969-70 and from 1971-72 to 1974-75.

Vasai : The Agricultural Produce Market Committee, Vasai was defunct upto 1970-71 and started functioning since 1971-72. The following statement gives the turn-over of trade at this market during 1971-72, 1972-73 and 1973-74 :—

Year	Paddy		Rice	
	Quantity in metric tonnes	Value in rupees	Quantity in metric tonnes	Value in rupees
(1)	(2)	(3)	(4)	(5)
1971-72	1,265	8,72,000	896	9,00,000
1972-73	337	2,36,000	235	2,63,000
1973-74	1,300	11,00,000	930	13,46,000

This market was defunct during 1974-75.

Kalyan : This regulated market started functioning since 1973-74. The following statement gives the turn-over of trade during 1973-74 :—

Commodity	Quantity in metric tonnes	Value in rupees
(1)	(2)	(3)
Paddy	1,381	11,97,000
Rice	730	10,59,000

This market was also defunct during 1974-75.

CO-OPERATIVE MARKETING

There were fourteen agricultural marketing societies in the district in 1974-75, of which one was a district level co-operative marketing society and the remaining were taluka level co-operative marketing societies. The fourteen societies had 7,962 members including 517 societies (as individual members) and 7,445 individuals. Their share-capital, reserve and other funds, and working capital amounted to Rs. 17.64 lakhs, Rs. 17.33 lakhs and Rs. 214.18 lakhs, respectively, on 31st March 1975. The purchases of these societies which included agricultural produce, agricultural requisites and consumers goods amounted to Rs. 191.02 lakhs in 1973-74. Their sales which included agricultural produce like paddy and other food-grains and agricultural requisites like fertilizers and agricultural implements amounted to Rs. 231.57 lakhs in 1973-74.

Table No. 33 gives the turn-over of these societies during 1968-69, 1972-73 and 1973-74.

Besides the taluka level marketing societies, there are many co-operative marketing societies in the district. Table No. 31 gives the sale and purchase activities of some societies in the district during 1968-69 and 1973-74.

WHOLESALE TRADE

The proximity of the metropolitan city of Bombay has hampered the growth of wholesale trade activity in Thane district to some extent. A bulk of the produce is transported to Bombay where it is marketed on a wholesale basis. A vast quantity of fruits and vegetables produced in the district is directly transported to the wholesale markets in Bombay. Rice which is the principal agricultural product is controlled under the monopoly procurement system which has affected the private trade in rice and paddy. The system of informal rationing in rice, wheat and *jowar* has also curbed the wholesale trade in those commodities. As regards industrial commodities, it is found that many of the factories in the district have their head offices in Bombay, and hence almost the entire produce is transported to Bombay or to the markets where they are in demand. Hence, there is practically no wholesale trade in industrial commodities which takes place at the place of production. There is, however, some wholesale trade in groceries, cloth and other consumer goods at bigger towns like Thane, Kalyan and Bhiwandi. In the absence of statistics it is, however, difficult to estimate the extent of such trade.

RETAIL TRADE

Dispersion of shops : In all the towns of the district the dispersion of retail shops follows the usual pattern. Shops selling grocery, *pan*, *bidi*, cloth, hosiery and ready-made clothes, fuel and vegetables are found in almost all localities in the towns. Shops dealing in stationery articles, books, general merchandise, fruits, sweetmeats and eatables are not well dispersed since demand for these is not so very frequent. Shops selling commodities such as metal utensils, hardware, building material and perfumes which are very few in number are located at the central market place. As per the 1961 Census there were 11,432 shops in the district, of which 5,000 were in the rural and 6,432 in urban areas. The number of shops per 1,000 dwellings was 22.7 for the rural areas and 72.5 for the urban areas. Assuming the ratios to hold good for 1971* it may be estimated that there would be 17,455

* In 1971, rural and urban population of the district was 14,52,922 and 8,25,733, respectively.

shops in the district, of which 5,493 would be in the rural areas and 11,962 in the urban areas.¹ Almost every village has at least one shop.

The 1971 Census enumerates 17,953² establishments in trade and commerce in the district, of which 37 per cent or 6,632 establishments were in rural areas and 63 per cent or 11,521 establishments were in urban areas. As many as 38,655 persons were employed in trade and commerce in 1971, of which 32 per cent or 12,183 persons were in rural areas and 68 per cent or 26,472 persons were in urban areas. Table No. 32 shows the distribution of trade and commercial establishments by types of business and size of employment in them in the district during 1971.

Grocery shops : Among the retail shops, the grocery group is the most important. All sorts of cereals and pulses, *gur*, sugar, oil, *ghee*, spices, tea and coffee powder and other items of grocery are kept in these shops. The value of stock-in-trade of an individual shop depends upon the size of establishment. The value of stocks varies from about Rs. 500 to Rs. 10,000. The commodities sold in these shops are bought from wholesalers. Only in some cases commodities are bought from outside the district. The annual turn-over ranges from Rs. 6,000 to Rs. 20,000 depending upon the size of establishment. Usually the small retailers make their purchases on credit and settle the bills within a month or two.

Pan, bidi, cigarette and tobacco shops : These shops are wide-spread and common. Most of them are small establishments managed by one or two persons. *Pan*, *bidi*, chewing tobacco, cigarettes, betel-nuts, catechu and match-boxes are the articles sold in these shops. The stock-in-trade is obtained from the local wholesalers on cash or credit basis payable within a week. Its value varies from Rs. 50 to Rs. 1,000.

Cloth shops : Cloth shops sell all kinds of textiles including coating, shirting *saris*, brocades, blouse pieces, *dhotis*, *chaddars* and towels. The capital invested by them varies from Rs. 5,000 to Rs. 50,000. The investment of big shops at Thane and Kalyan ranges up to over a lakh of rupees. In most cases, banks are approached for loans. Cloth is brought from Bombay, Nagpur, Ahmedabad, Solapur and Malegaon. Many textile mills from Bombay and Thane have opened their retail shops in Thane town.

Hosiery and ready-made clothes : These shops sell ready-made clothes as also hosiery. The value of stock-in-trade ranges from Rs. 3,000 to Rs. 10,000, while the annual turn-over ranges from

¹ Survey Report of Thane District by Bank of Maharashtra.

² Including hotels and restaurants.

Rs. 5,000 to Rs. 25,000. The shop-keepers make purchases from the wholesalers at Bombay.

Fire-wood and timber shops : These shops are located in many of the towns as well as villages in the forest tracts in the district. They bring timber from the forests in the district, while high quality timber and teak which is required for construction of buildings is brought from Nasik and Chandrapur districts. The capital investment in these shops ranges from Rs. 5,000 to Rs. 50,000. The turn-over of forest produce amounted to Rs. 1,58,67,000 in 1961-62, Rs. 1,70,84,000 in 1965-66, Rs. 60,80,709 in 1968-69 and Rs. 10,62,003 in 1969-70.

Stationery, cutlery, bangles and provision shops : These shops keep for sale stationery articles, cutlery, bangles and cosmetics. The goods are brought either from Bombay or are purchased at Thane and Ulhasnagar. The stock-in-trade at these shops varies from Rs. 3,000 to Rs. 20,000. Annual turn-over of these shops varies from Rs. 6,000 to Rs. 15,000.

Fruits, vegetables and flowers shops : Most of these shops are small units managed by one or two persons. The stock-in-trade of these shops is limited. They serve areas in the immediate neighbourhood. Fruits and vegetables are brought from the surrounding rural areas and from Pune, Nasik and Bombay. The fruits generally sold are mangoes, grapes, *papayas*, oranges, *sweet limes*, figs, bananas and guavas depending on the season. Trade in certain vegetables and fruits is also seasonal.

Leather goods and footwear shops : There are some shops which deal exclusively in leather, while others deal exclusively in footwear and leather goods. The big shops in the towns generally sell products of some well-known footwear companies alongwith other goods coming from Kolhapur. Others sell goods made by local artisans. Many a time, artisans are attached to these shops. Business is brisk in summer and marriage season.

Hardware and building material : The big shop-keepers make their purchases direct from the manufacturers at Bombay and the small ones purchase either from the bigger shops in Thane or from wholesalers at other places. The articles for sale include iron and steel bars, nails, screws, metal sheets and wires. The stock-in-trade of the shops varies from Rs. 5,000 to Rs. 20,000 depending upon the size of establishment.

Medicines and drugs : These shops sell a variety of drugs, e.g. allopathis, homoeopathic, *ayurvedic* and other indigenous and foreign medicines. They also sell medical and surgical appliances. A large part

of chemicals and drugs stocked in them is brought from Bombay, Baroda and Calcutta, while *ayurvedic* preparations are brought from Panvel, Satara and Ahmadnagar.

A sample survey of retail trade was conducted in Thane district at some selected places during 1970. Information about the number of shops of each type, their average net profit, average number of workers employed and average annual turn-over of each type of shop which was collected during the survey is given in table No. 34.

STATE TRADING AND FAIR PRICE SHOPS

The history of state trading dates back to 1942. Consequent upon the general shortage of consumer goods and continuous increase in their prices caused by World War II the Government of India adopted the policy of rationing of consumer goods such as rice, jowar, wheat, kerosene, sugar, cloth, etc., which were distributed through ration shops at controlled rates. These commodities were purchased by Government on the levy system from the producers. Under the compulsory levy system rice and paddy were purchased by Government only. This state of affairs continued in its original rigorous form till 1948, when the stringent policy was relaxed. The reasons generally advocated for the continuation of controls were that (i) rationing helped to maintain prices at a level which was fair both to the producer and consumer, (ii) it reduced hoarding by middlemen, and (iii) it reduced the hardships to the poor by supplying food-grains to the deficit areas.

The situation of supplies of consumer goods improved to some extent after 1950. This prompted the Government to relax further the extent of controls which finally resulted in the complete decontrol in 1954. On account of adverse food situation since 1956, limited controls in the shape of creating zones for rice and wheat, sale through fair price shops and restrictions on the movement of food-grains were re-imposed in this State.

Under this policy rice and wheat were imported from foreign countries and distributed through fair price shops. The acute shortage of food-grains after the Indo-Pak War of 1965, however, made it imperative on the part of Government to introduce the monopoly procurement scheme from 1965-66. Under the system Government procures food-grains such as rice, jowar and wheat on monopoly basis through the Maharashtra State Co-operative Marketing Federation which is the sole agent of Government for purchase of paddy in this district. The federation has nominated its agents in the district for purchasing business. Only the co-operative societies have been appointed as the authorised sub-agents. The following statistics shows the paddy

purchased by the federation in Thane district from 1965-66 to 1967-68 :—

Year		Paddy purchased in quintals	Value in rupees
1965-66	.. ..	3,00,007	1,05,30,050
1966-67	.. ..	2,01,450	1,16,87,000
1967-68	.. ..	5,18,252	3,50,56,241

There were 325 fair-price shops in the statutory rationing areas and 425 in the informal rationing areas in 1970-71. At present there is informal rationing in rice, wheat, jowar and sugar which are distributed through fair-price shops. Up to 1970-71 there was statutory rationing in the municipal areas of Thane, Kalyan and Ulhasnagar and informal rationing in the rest of the district.

The quantity and value of commodities disbursed through fair-price shops in the district during 1974-75 is given below :—

Commodity (1)		Quantity in quintals (2)	Value in rupees (3)
(1) Rice	.. ..	1,81,984	2,98,45,376
(2) Wheat	.. ..	7,64,758	10,55,36,604
(3) Sugar	.. ..	91,373	1,96,45,195
(4) Bajra	.. ..	2,274	3,36,552
(5) Jowar	.. ..	11,127	20,80,749
(6) <i>Ata</i>	.. ..	130	19,500
(7) <i>Rava</i>	.. ..	2,660	5,74,760
(8) <i>Maida</i>	.. ..	1,270	2,66,700
(9) Millo	.. ..	370	35,520
		10,55,946	15,83,80,956

Source.—Deputy Controller of Rationing, Thane.

STORAGE FACILITIES

Facilities for storage of agricultural produce in the district comprise godowns owned by co-operative societies, Government godowns and private godowns. The information regarding private godowns is, however, not available. There are 58 Government godowns in the district with a total capacity of 22,600 metric tonnes, of which twelve godowns

with a capacity of 2,450 metric tonnes are hired by Government from private owners. Six of the godowns with a capacity of 3,000 metric tonnes are provided by the Maharashtra State Warehousing Corporation. The rest are under the control of the Government authorities at the district level.

In the co-operative sector there were 316 godowns in 1969-70 with a total capacity of 39,100 metric tonnes. Under the Small Farmers' Development Agency Scheme twenty-seven new godowns are proposed to be constructed within the period of four years. However, it was found that many of the existing godowns were not fully used for storing agricultural produce.

The following statement shows the number of co-operative godowns and their capacity in Thane district in 1968-69 :—

	Co-operative godowns	
	Number	Capacity in Metric Tonnes
(1) Agricultural credit societies—		
(i) Owned ..	70	14,200
(ii) Hired ..	177	8,900
(2) Marketing societies—		
(i) Owned ..	10	11,500
(ii) Hired ..	59	32,200
Total ..	316	66,800

Table No. 35 shows the number of godowns and their capacity in Thane district during 1969-70.

WEEKLY MARKETS

The weekly markets were important centres of trade in the past. They ranked next to wholesale trade centres. The rural populace used to purchase their day-to-day requirements of articles from the weekly markets. These markets are generally distributing centres.

The articles sold in weekly bazars are food-grains, pulses, oils, chillis, spices, *gur*, cloth, fruits, vegetables, betel-leaves, dry fish, salt, earthen and metal pots, etc. Pedlars and hawkers set up booths on the market-days. Even traders and shop-keepers from neighbouring villages go to these markets and put up temporary stalls. Buyers are from neighbouring villages, within the distance of 6 to 8 kilometres.

The old *Thana District Gazetteer* published in 1884 reports that there were 53 weekly and bi-weekly markets in the district in 1882. Their number stood at 54 in 1961 including two cattle markets. Periodical

markets are held at the following towns and villages in Thane district :—

Dahanu taluka	...	Bordi, Asave, Dhandalwadi, Salwan, Bapgaon, Vangaon, Ganjad, Urse, Usroti, Dahanu.
Talasari taluka	...	Talasari.
Mokhada taluka	...	Talasari, Hirve, Mokhada, Khodale.
Jawhar taluka	...	Talawada, Talawali, Dadade, Wadoli, Nyahale, Raitali, Walwande, Aпти Bk., Vikramgad, Vasuri, Jawhar.
Palghar taluka	...	Betegaon, Manor, Dhamloli, Saphale, Shirgaon, Palghar.
Vada taluka	...	Gorha, Devghar, Kudus, Pinjal, Vada.
Vasai taluka	...	Agashi, Kopharad, Sopara, Virar, Vasai.
Bhivandi taluka	...	Padghe, Bhivandi.
Shahapur taluka	...	Vihigaon, Khardi, Kinhavali, Shahapur.
Murbad taluka	...	Murbad, Dhasai.
Kalyan taluka	...	Kalyan, Katemanivali.
Thane taluka	...	Bhayandar, Thane.

The following statement shows taluka-wise distribution of weekly markets and average population in rural areas per market in Thane district* :—

Taluka	Rural population (1961)	Number of weekly markets both in rural and urban areas	Average rural population per weekly market	Number of persons engaged in trade and commerce
(1)	(2)	(3)	(4)	(5)
District total ..	11,53,350	54	21,358	11,635
(1) Dahanu ..	1,44,021	10	14,402	959
(2) Talasari ..	42,945	1	42,945	129
(3) Mokhada ..	47,140	4	11,785	269
(4) Jawhar ..	77,629	11	7,057	362
(5) Palghar ..	1,59,553	6	26,592	1,607
(6) Wada ..	64,034	5	12,807	264
(7) Vasai ..	1,28,363	5	25,673	3,482
(8) Bhivandi ..	1,15,070	2	57,535	1,057
(9) Shahapur ..	1,07,353	4	26,838	809
(10) Murbad ..	84,334	2	42,167	601
(11) Kalyan ..	1,12,648	2	56,324	1,254
(12) Thane ..	70,260	2	35,130	842

* Census of India, 1961, *Weekly Markets in Maharashtra*.

FAIRS

Though fairs are primarily religious gatherings, they also bring into the 'market' the various indigenous articles produced by the villagers and thus serve as a place of exchange of goods on a considerable scale. They are in a sense complimentary to weekly markets so far as commercial transactions are concerned.

A large turn-over of goods almost invariably constituted a regular feature of the village fairs in the past. The merchants, artisans, farmers, gardeners, potters and weavers all used to bring their produce to the fairs. Generally the villagers used to buy a part of their requirements at the fairs. Now-a-days with the establishment of retail shops even in the far off villages, the importance of fairs has declined. Even then quite a large number of buyers and sellers patronise fairs and considerable quantities of agricultural and other commodities are sold in these fairs. The commodities include salt, chillis, oil, clothing, spices, sugar, grains, fruits and vegetables, sweetmeats and other eatables, potteries, groceries, utensils, bangles, ready-made clothes, country blankets, etc. Pedlars, vendors and retail shop-keepers assemble their produce for sale at these fairs. The buyers are generally from the adjoining rural areas.

An account of some important fairs in Thane district is given below :

Mahalaxmi fair at Viwalwedhe : This fair is held annually at Viwalwedhe in Dahanu taluka at a distance of about 27·37 km. to the east of Dahanu Road railway station on the Western Railway. During the fair 400 to 500 stalls are opened where articles of provision such as dry fish, stationery, cutlery, utensils, etc. are sold. In addition, twenty to twenty-five shops selling material required for worship are opened during the fair within the temple compound.

The important stalls are those of utensils which stock utensils worth Rs. 25,000 to Rs. 30,000. Some stalls keep utensils worth Rs. 10,000 to Rs. 12,000. The stalls selling *saris* generally have stocks of Rs. 20,000 to Rs. 25,000. Besides, about fifteen to twenty stalls selling gum and salt are also opened. The pilgrims from the Malhar, Koli and Varli communities purchase their annual requirements of salt in this fair. An aggregate of about 4,500 to 5,000 bags of salt are sold in this fair. In addition, about fifty stalls sell dry fish and about fifteen shops sell grocery. Besides, there are a number of stalls selling various consumer goods. During the fair period the aggregate money transactions amount to about Rs. 75,000 to Rs. 1,00,000.

Mhasoba fair at Mhase : The cattle market held at the time of the fair is one of the biggest in the State. Bullocks and horses from Junnar area and buffaloes from Khandesh are also sold in large numbers.

In addition to cattle, coconuts and other articles of worship are also sold. Near about fifty thousands of coconuts are sold during the period of the fair. The traders from Pandharpur attend the fair for selling *ghongadi*. Besides the local traders, those from Ahmadnagar, Nashik, Pune, Kalyan, Bombay and Thane also attend the fair. The sale of commodities during the fair is estimated to be Rs. 8 to Rs. 12 lakhs.

Haji Malang fair at Wadi: Shop-keepers of Kalyan and the surrounding places establish their stalls in the fair. Commodities such as flowers, sugar candy, *gur*, incense-sticks, coconuts, etc., are sold in large quantities. There are some permanent shops of grocery, cloth and stationery near the Haji Malang *dargah*. The estimated sale during the fair is over one lakh rupees.

Besides the above-mentioned fairs, about 340 other fairs are also held in rural areas and thirty in urban areas of the district.

PEDLARS

Next to the wholesale and retail traders, pedlars played quite an important role in the trade organization in the past when retail shops were very few in number in the rural areas. These itinerant traders were selling various consumers goods. However, their importance has declined due to the development of trade and increase in the number of retail shops. The villagers, now-a-days, prefer to buy from shops and bazars. Pedlars are, however, found in all the talukas of Thane district. The total number of hawkers, pedlars and street vendors was 4,431 in the district as per 1961 Census.

Some of the pedlars belong to professional classes, e.g., oil-men, weavers, gardeners, tailors, etc. They buy their articles in the towns and sell in the villages. They carry their goods on ponies, bullocks, or in S. T. buses. Most of their transactions are done on cash basis, though barter system is also prevalent. Fruits, vegetables, spices, earthen pots, mats, ice-candies, baskets, grinding stones, etc., are sometimes exchanged for food-grains. Some sellers of utensils of brass, copper, aluminium, etc., exchange their articles for old clothes, which they sell after darning and washing. The pedlars obtain their stock-in-trade from Kalyan, Thane, Ulhasnagar, Bhivandi, Vasai, Palghar, and sometimes from Bombay too.

HAWKERS

The counterpart of pedlars in rural areas are the hawkers in towns. Hawking is prevalent in almost all the municipal towns in the district though in varying degrees. The hawkers move from place to place. They

carry their goods either as head-loads or on hand-carts. Some of them use bicycles. The goods sold by them include vegetables, fruits, sprouted pulses, coconuts, betel-leaves, fish, bread and biscuits, eggs, sweets, dry fruits, metal-utensils, crockery, ice-cream, *sharbat*, earthenware, stationery articles, cloth, ready-made clothes, etc.

WEIGHTS AND MEASURES

The old weights and measures differed from place to place and also sometimes for each commodity at the same place. In order to put an end to the confusion resulting from such a chaotic state of affairs and to adopt a uniform system for the whole country, the Government of India enacted the Standards of Weights and Measures Act in 1956. In pursuance of this Act, the then Government of Bombay enacted the Bombay Weights and Measures (Enforcement) Act, 1958, for the enforcement of standard units based on metric system in the State. Adoption of the system began in 1958 and was completed by the end of 1966. Even with the enforcement of the Act old units of measures are still found on a very small scale in some rural parts of the district due to the slow acclimatisation of the people with the new system.

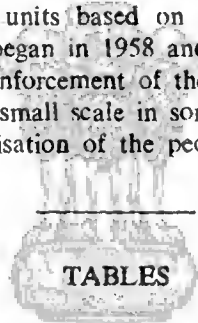


TABLE NO. 1—LOANS ADVANCED TO TRADERS AND NON-TRADERS
BY MONEY-LENDERS IN THANE DISTRICT

Year	Loans advanced to traders		Loans advanced to non-traders		Total loans advanced
		Rs.		Rs.	Rs.
1949—50	..	12,53,515	..	3,68,632	16,22,147
1952—53	..	2,53,579	..	1,90,280	4,43,859
1959—60	..	5,07,385	..	10,84,524	15,91,909
1963—64	..	5,39,000	..	18,95,000	24,34,000
1969—70	..	7,55,416	..	27,89,202	35,44,618
1970—71	..	7,24,828	..	29,08,523	36,33,351
1971—72	..	9,62,673	..	36,92,201	46,54,874
1972—73	..	10,26,668	..	43,25,164	53,51,832
1973—74	..	10,27,325	..	51,90,191	62,17,516
1974—75	..	16,54,368	..	49,85,333	66,39,701

TABLE NO. 2—STATISTICS OF LICENSED MONEY-LENDERS IN
THANE DISTRICT

Year		Number of applications received for grant and/or renewal of licences	Number of licences granted for first time	Number of licences renewed	Number of moneylenders holding valid licences as on 31st July
1949—50	..	147	26	57	83
1952—53	..	71	23	48	71
1959—60	..	203	17	172	189
1962—63	..	176	9	165	174
1966—67	..	181	20	152	172
1969—70	..	N.A.	N.A.	N.A.	200
1970—71	..	221	32	780	212
1971—72	..	250	42	202	244
1972—73	..	277	42	225	267
1973—74	..	N.A.	N.A.	N.A.	296
1974—75	..	N.A.	N.A.	N.A.	313

N.A. = Not available

TABLE NO. 3—NUMBER OF REGISTERED MONEY-LENDERS AND
LOANS ADVANCED BY THEM IN THANE DISTRICT
DURING 1974-75

Serial No.	Taluka	Number of money-lenders	Loans advanced to traders (in rupees)	Loans advanced to non-traders (in rupees)	Total (in rupees)
(1)	(2)	(3)	(4)	(5)	(6)
1. Thane	..	123	1,82,527	28,25,921	30,08,448
2. Vasai	..	21	3,129	59,210	62,339
3. Palghar	..	8	43,814	1,16,722	1,60,536
4. Dahanu	..	21	37,523	2,19,407	2,56,930
5. Talasari	..	2	825	1,012	1,837
6. Jawhar	..	1	....	....	....
7. Mokhada	..	2	....	5,921	5,921
8. Wada	..	2	....	64,602	64,602
9. Bhiwandi	..	18	13,24,719	3,31,051	16,55,770
10. Shahapur	..	8	12,481	18,619	31,100
11. Murbad	..	6	9,382	24,872	34,254
12. Kalyan	..	81	21,526	11,23,620	11,45,146
13. Ulhasnagar	..	20	10,542	94,376	1,04,918
District Total	..	313	16,46,468	48,85,333	66,39,701

TABLE NO. 4—STATISTICS OF CO-OPERATIVE SOCIETIES IN THANE DISTRICT IN 1916, 1921 AND 1925

Classification (1)	Year (2)	Number of societies (3)	Number of members (4)	Loans due from		Share- capital paid up (7)
				Individuals (5)	Societies (6)	
(1) Banks ..	1921	1	212	..	99,590	29,450
	1925	1	215	..	93,744	32,600
(2) Agricultural societies—						
Credit ..	1916	14	1,237	70,206	..	3,384
Non-credit ..	..	13	552	12,337	..	10,850
Credit ..	1921	42	3,887	1,60,123	..	..
Non-credit ..	..	10	676	43,394	..	12,466
Credit ..	1925	40	4,373	1,68,136	..	..
Non-credit ..	..	11	1,051	45,208	..	14,925
(3) Non-agricultural societies—						
Credit ..	1916	..	..	..	..	..
Non-credit ..	..	..	..	..	..	..
Credit ..	1921	11	2,331	1,17,724	3,319	31,862
Non-credit ..	..	9	918	10,017	127	91,242
Credit ..	1925	20	2,879	3,53,206	..	70,613
Non-credit ..	..	11	1,221	1,748	..	1,42,439

TABLE NO. 5—STATISTICS RELATING TO DISTRICT LAND DEVELOPMENT BANK, THANE DISTRICT DURING 1969-70

Year (1)	Number of Branches (2)	Number of members (3)	Share- capital (4)	Reserve and other funds (5)	Working capital (6)	Loans advanced (7)
			Rs.	Rs.	Rs.	Rs.
1963-64 ..	1	1,079	85,000	1,03,000	10,28,000	1,86,000
1965-66 ..	1	3,442	85,475	34,749	7,93,153	2,43,600
1967-68 ..	2	3,442	85,475	86,477	6,44,772	Nil
1969-70 ..	2	3,442	85,475	79,000	5,25,000	Nil

TABLE NO. 6—FINANCIAL POSITION OF DIFFERENT TYPES OF CO-OPERATIVE SOCIETIES IN THANE DISTRICT
DURING 1974-75

(Rs. in thousands)						
Types of societies (1)	Number of societies (2)	Number of members		Share- capital (5)	Reserve and other funds (6)	Working capital (7)
		Societies (3)	Individuals (4)			
I. Agricultural credit societies (including service societies) ..	563	....	88,959	72,86	29,00	3,88,23
II. Agricultural non-credit societies—						
(a) Fisheries societies ..	36	....	22,658	53,76	50,58	2,30,48
(b) Agricultural marketing societies ..	14	517	7,445	17,64	17,33	2,14,18
(c) Animal husbandry societies ..	70	160	4,442	9,71	3,64	39,55
(d) Irrigation societies ..	46	....	695	54	....	1,09
(e) Farming societies ..	29	....	1,072	1,72	3,74	13,69
(f) Agricultural processing societies ..	19	132	9,248	8,52	3,12	25,12
(g) Other agricultural non-credit societies ..	14	....	641	60	2,08	9,03
III. Non-agricultural credit societies—						
(a) Urban credit societies ..	13	....	6,488	3,55	1,94	10,23
(b) Salary-earners societies ..	155	....	58,000	20,71	16,98	3,27,76
(c) Urban banks ..	10	....	35,082	47,75	23,86	5,59,39
IV. Non-agricultural non-credit societies—						
(a) Weavers societies ..	5	....	1,482	1,20	1,15	7,20
(b) Other industrial societies ..	95	174	8,574	13,58	16,30	66,09
(c) Consumers stores ..	86	26	37,891	16,82	17,14	90,79
(d) Housing societies ..	598	....	17,341	53,12	6,49	7,38,14
(e) Other non-agricultural non-credit societies ..	178	547	19,841	41,83	12,64	1,14,20
(f) Spinning mills ..	2	4	1,174	1,11,90	1,32,33	4,45,66

TABLE No. 7—STATISTICS RELATING TO THE DISTRICT CENTRAL CO-OPERATIVE BANK, THANE DISTRICT

Year	(Rupees in thousands)									
	(1)	Number of branches (2)	Members		Share- capital (5)	Reserve and other funds (6)	Working capital (7)	Loans advanced		(9)
			Societies (3)	Individuals (4)				Short-term (8)	Medium- term	
1965-66	..	23	889	151	25,11	28,35	3,32,42	....	4,22,82	
1966-67	..	23	982	141	49,51	59,16	3,51,77	....	7,24	
1967-68	..	24	1,008	151	53,98	11,77	3,65,76	2,73,24	1,24	
1968-69	..	27	1,059	151	55,27	14,71	4,11,46	11,27,77	19,55	
1969-70	..	28	1,064	150	56,91	18,66	4,53,96	11,96,64	23,26	
1970-71	..	28	1,115	146	58,11	20,03	4,91,75	6,96,32	12,47	
1971-72	..	29	1,173	146	59,77	24,70	5,66,23	6,96,32	12,47	
1972-73	..	30	1,234	144	63,24	29,80	7,03,86	3,53,85	87,05	
1973-74	..	35	1,292	143	63,92	40,98	8,83,54	9,13,66	20,05	
1974-75	..	34	1,297	143	73,23	69,99	10,61,34	4,45,67	1,19,41	

TABLE NO. 8—STATISTICS RELATING TO URBAN CO-OPERATIVE BANKS IN THANE DISTRICT

Year	Number of branches	Number of members	Share-capital	Reserve and other funds	Working capital	Loans advanced	
						Short-term	Medium-term
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Rs.	Rs.	Rs.	Rs.	Rs.
1965-66	..	5	10,97,835	6,27,259	47,85,252	35,64,308	99,967
1969-70	..	5	15,13,000	8,24,000	70,20,000	36,02,000	8,49,000
1970-71	..	6	20,10,000	9,09,000	1,66,83,000	70,19,000	7,70,000
1971-72	..	8	25,92,000	11,17,000	2,55,97,000	15,42,000	24,54,000
1972-73	..	8	29,55,000	14,08,000	3,18,78,000	1,06,67,000	85,08,000
1973-74	..	10	40,24,000	17,40,000	4,46,68,000	7,18,39,000	1,22,75,000
1974-75	..	10	47,75,000	23,86,000	4,94,53,000	1,97,61,000	1,35,47,000

TABLE No. 9—PRIMARY AGRICULTURAL CREDIT SOCIETIES IN THANE DISTRICT

(Rupees in thousands)

Year	Number of societies	Number of members	Share-capital	Reserve and other funds	Working capital	Loans					Percentage recovered
						Advanced	Recovered	Out-standing	Overdues		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1964-65	..	545	1,48,993	87,08	14,01	3,02,01	2,77,52	88,13	30,07	1,06,65	....
1969-70	..	600	86,000	50,84	13,41	2,28,52	78,67	72,55	1,71,03	1,14,69	37.5
1970-71	..	575	80,000	55,44	18,24	2,51,00	79,88	83,87	1,64,49	1,08,67	33.5
1971-72	..	569	82,000	58,54	19,89	2,80,36	73,53	77,76	1,60,26	1,08,88	46
1972-73	..	568	86,000	59,66	21,67	3,51,07	1,63,90	1,08,05	2,15,20	72,91	50
1973-74	..	566	84,674	66,63	22,96	3,69,81	1,41,06	1,28,84	2,27,65	91,28	56
1974-75	..	563	88,959	72,86	29,00	3,88,23	1,43,55	1,30,60	2,20,60	1,03,07	68

TABLE No. 10—PRIMARY AGRICULTURAL CREDIT SOCIETIES IN EACH TALUKA OF THANE DISTRICT, 1974-75
(Rupees in thousands)

Serial No.	Taluka	Number of societies	Number of members	Share-capital	Reserve and other funds	Working capital	Loans					Percentage recovered
							Advanced	Recovered	Out-standing	Overdues		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	Thane	32	4,994	1.55	2.71	10,16	65	71	99	62	47	
2	Vasai	34	8,346	5.73	10.32	40,67	5.77	6.67	8.73	2.82	70	
3	Palghar	66	13,164	10.13	5.18	62,12	29.58	34.18	26.32	12.78	73	
4	Dahanu	47	10,804	4.05	2.42	30,88	10.74	10.16	14.45	9.67	51	
5	Talasari	11	2,559	1.02	35	4.13	62	1.29	2.11	1.78	42	
6	Jawhar	51	7,006	5.91	37	27,15	11.43	12.11	20.15	7.92	68	
7	Mokhada	24	5,045	3.72	22	17,55	4.20	5.21	13.96	7.96	42	
8	Wada	51	6,118	8.75	1.10	44,72	24.70	24.38	31.49	12,02	69	
9	Bhiwandi	23	7,800	11.90	2.52	60,69	28.32	30.68	43,57	12,57	72	
10	Shahapur	76	8,719	8.08	1.67	41,71	12,58	11,58	28,82	15,02	44	
11	Murbad	87	8,301	9.13	1.49	34,88	13,09	11,46	24,61	15,79	39	
12	Kalyan	61	6,103	2.89	65	13,57	1.87	2.17	5,40	4,12	32	
13	Ulhasnagar											
	District Total	563	88,959	72.86	29,00	3,88,23	1,43,55	1,50,60	2,20,60	1,03,07	64.9	

TABLE No. 11—CO-OPERATIVE FISHERIES SOCIETIES IN THANE DISTRICT

(Rs. in thousands)						
Year		Number of societies	Number of members	Share-capital	Reserve and other funds	Working capital
1966-67	..	38	1,94,23	7,67	11,88	63,16
1969-70	..	39	2,20,00	27,06	18,38	1,24,16
1970-71	..	39	2,10,00	33,17	17,70	1,37,72
1971-72	..	39	2,20,16	41,82	24,40	1,81,72
1972-73	..	39	2,24,72	50,51	27,63	2,11,29
1973-74	..	37	2,24,55	53,17	41,72	2,37,78
1974-75	..	36	2,26,58	53,78	50,58	2,50,48

TABLE No. 12—ANIMAL HUSBANDRY SOCIETIES
IN THANE DISTRICT

Particulars		Unit	Year	
			1967	1968
(1)		(2)	(3)	(4)
1. Milk Produce union	..	Number	3	4
(a) Members	..	Number	2,65	243
(b) Share-capital	..	Rupees in hundreds	47	54
(c) Working capital	..	Rupees in hundreds	4,36	4,58
(d) Milk sold	..	Rupees in hundreds	17,30	8,33
(e) Profit—				
(i) Number of societies	..	Number	1,810	1,200
(ii) Profit	..	Rupees in hundreds	12	12
(f) Loss—				
(i) Number of societies	..	Number	2	2
(ii) Loss	..	Rupees in hundreds	16	16
2. Primary milk produce societies	..	Number	18	18
(a) Members	..	Number	18,32	15,33
(b) Share-capital	..	Rupees in hundreds	50	50
(c) Working capital	..	Rupees in hundreds	6,10	1,64
(d) Milk purchase	..	Rupees in hundreds	8,97	3,21
(e) Milk sold	..	Rupees in hundreds	14,08	3,51
(f) Profit—				
(i) Number of societies	..	Number	13	9
(ii) Profit	..	Rupees in hundreds	20	18
(g) Loss—				
(i) Number of societies	..	Number	5	7
(ii) Loss	..	Rupees in hundreds	8	6

TABLE NO. 13—ANIMAL HUSBANDRY SOCIETIES IN THANE DISTRICT DURING 1966-67 AND FROM 1970-71 TO 1974-75

Year	Number of societies	Members		Share-Capital (Rupees in lakhs)	Reserve and other funds (Rupees in lakhs)	Working capital (Rupees in lakhs)
		Societies	Individuals			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1966-67 ..	37	34	2,518	9.78	0.56	26.60
1970-71 ..	40	124	2,412	8.97	1.48	20.24
1971-72 ..	53	124	3,172	9.79	1.80	27.27
1972-73 ..	65	153	3,939	11.80	2.25	29.15
1973-74 ..	65	154	4,043	6.18	3.63	33.51
1974-75 ..	70	160	4,442	9.71	3.64	39.55

TABLE NO. 14—AGRICULTURAL PROCESSING SOCIETIES IN THANE DISTRICT

(Rupees in thousands)						
Year	Number of societies	Members		Share-capital	Reserve and other funds	Working capital
		Societies	Individuals			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961-62 ..	4	..	505	N.A.	N.A.	2.35
1964-65 ..	9	77	3,989	4.09	10	6.28
1966-67 ..	17	..	7,165	7.03	7.47	13.12
1969-70 ..	20	88	9,067	8.56	1.10	19.96
1970-71 ..	19	88	9,089	8.65	1.31	20.69
1971-72 ..	19	127	9,221	8.65	1.57	25.15
1972-73 ..	19	131	9,625	8.66	1.97	25.09
1973-74 ..	19	134	9,499	8.77	2.75	26.75
1974-75 ..	19	132	9,248	8.52	3.12	25.12

N.A. = Not available.

TABLE NO. 15—SALARY-EARNERS SOCIETIES IN THANE DISTRICT

(Rs. in thousands)						
Year	Number of societies	Members		Share-capital	Reserve and other funds	Working capital
		Societies	Individuals			
1964-65 ..	59	38,359	4,779	346	13,660	
1966-67 ..	75	51,000	6,979	500	18,016	
1969-70 ..	107	N.A.	11,524	1,344	25,520	
1970-71 ..	129	73,509	14,780	2,861	34,686	
1972-73 ..	129	40,593	21,894	2,789	53,577	
1973-74 ..	145	56,000	21,030	1,664	32,134	
1974-75 ..	155	58,000	20,710	1,698	32,776	

N.A. = Not available.

TABLE No. 16—LABOUR CONTRACT SOCIETIES IN THANE DISTRICT

Particulars	Year		
	1967	1968	1971
1. Societies	36	38	31
2. Members	1,617	1,824	2,000
3. Share-capital (Rs. in thousands)	70	86	N.A.
4. Government contribution to share-capital (Rs. in thousands)	26	28	N.A.
5. Working capital (Rs. in thousands)	1,89	1,87	2,00
6. Number of works done	60	75	35
7. Cost of works (Rs. in thousands)	1,172	1,510	1,300
8. Profit—			
(a) Societies	9	10	12
(b) Amount (Rs. in thousands)	52	15	20
9. Loss—			
(a) Societies	20	18	19
(b) Amount (Rs. in thousands)	25	25	28

N.A. = Not available.

TABLE No. 17—HANDLOOM WEAVERS CO-OPERATIVE SOCIETIES IN THANE DISTRICT

Year	Number of societies	Number of members	Share-capital (in Rupees)	Reserve and other funds (in Rupees)	Working capital (in Rupees)
(1)	(2)	(3)	(4)	(5)	(6)
1966-67 ..	4	705	77,000	80,107	N.A.
1969-70 ..	3	625	76,000	76,000	4,42,000
1970-71 ..	3	679	76,000	78,000	4,34,000
1971-72 ..	3	634	76,000	1,02,000	5,55,000
1972-73 ..	4	1,049	91,000	82,000	10,71,000
1973-74 ..	5	1,356	1,18,000	87,000	7,23,000
1974-75 ..	5	1,482	1,20,000	1,15,000	7,20,000

N.A. = Not available.

* Figures for 1972-73 and 1973-74 include the statistics of powerloom societies also.

TABLE NO. 18—CO-OPERATIVE HOUSING SOCIETIES
IN THANE DISTRICT

Year	Number of societies	Number of members	Share- capital (in Rupees)	Reserve and other funds (in Rupees)	Working capital (in Rupees)	Tenements construc- ted
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1966-67 ..	185	7,952	21,80,000	N.A.	1,56,82,000	647
1970-71 ..	348	13,840	45,03,000	5,51,000	6,40,85,000	457
1971-72 ..	434	13,933	45,25,000	5,77,000	7,05,75,000	769
1972-73 ..	537	16,393	45,36,000	5,80,000	8,74,03,000	804
1973-74 ..	664	16,626	52,58,000	6,43,000	7,30,91,000	916
1974-75 ..	598	17,341	53,12,000	6,49,000	7,38,14,000	2,064

N.A. = Not available.

TABLE NO. 19—LOANS AND SUBSIDIES TO CO-OPERATIVE
SOCIETIES FOR PURCHASE OF TOOLS AND EQUIPMENT
IN THANE DISTRICT

Year	Subsidy given for.			Loans distributed for		
	Purchase of tools and equipments	Construc- tion of godowns and sheds	Manage- ment expenditure	Handloom- co-opera- tive societies	Purchase of tools and equipment	Construc- tion of godowns and sheds
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962-63 ..	1,000	....	5,000	1,000	2,000	..
1965-66 ..	4,450	....	4,300	1,000	4,450	..
1968-69 ..	3,000	3,000	1,800	....	3,000	6,000

TABLE NO. 20—SUBSIDY TO INDUSTRIAL CO-OPERATIVE SOCIETIES
OF BACKWARD CLASSES IN THANE DISTRICT

Year	Provision made	Amount distributed
(1)	(2)	(3)
	Rs.	Rs.
1962-63	2,000	2,000
1963-64	1,300	1,300
1964-65	1,700	600
1965-66	2,000	700
1966-67	2,000	600
1967-68	1,000	1,000
1968-69	300	300

TABLE NO. 21—LOANS GRANTED TO DIFFERENT INDUSTRIES AND TO UNEMPLOYED GOLDSMITHS IN THANE DISTRICT

Year	Loans to different industries		Loans distributed to goldsmiths
	Number of applications sanctioned	Amount distributed	
(1)	(2)	(3)	(4)
		Rs.	Rs.
1961-62	91	74,302	....
1963-64	52	30,000	16,750
1965-66	46	75,000	4,650
1969-70	50	80,000	....
1972-73	49	75,000	....

TABLE NO. 22—COLLECTION OF SMALL SAVINGS IN THANE DISTRICT DURING 1973-74

(Figures of rupees in thousands)

Serial No.	Description	Gross collection	With-drawals	Net collection
(1)	(2)	(3)	(4)	(5)
1	National Defence Certificates ..	....	5,01 (—)	5,01
2	Ten Year Defence Certificates ..	....	23,79 (—)	23,79
3	Fifteen Year Defence Certificates ..	....	92 (—)	92
4	Ten Year National Savings Certificates—1st Issue.	....	....	....
5	Postal Savings Certificates ..	....	1,31 (—)	1,31
6	Five Year Fixed Deposit Scheme ..	....	11,18 (—)	11,18
7	Post Office Savings Banks ..	1,63	18,30	9,33
8	Cumulative Time Deposits ..	21,94	1,18	20,76
9	Seven Year National Savings Certificates—IIrd Issue.	2,22	12	2,10
10	Seven Year National Savings Certificates—IIIrd Issue.	19,79	66	19,13
11	Seven Year National Savings Certificates—IVth Issue.	9	....	9
12	Recurring Deposits ..	21,15	2,45	18,70
13	Time Deposits ..	3,82,14	31,79	3,50,35
14	Public Provident Fund ..	3,07	....	3,07
Total ..		4,52,03	96,71	5,56,82

TABLE NO. 23—FINANCIAL AID TO AGRICULTURE IN
THANE DISTRICT

Scheme	Unit	Period	
		1st June 1962 to 31st March 1967	1st April 1967 to 31st March 1972
(1)	(2)	(3)	(4)
(1) Intensive farming—			
(a) paddy-seed supply ..	Quintals ..	4,112	7,583
(b) seed supply of wheat, <i>jowar</i> , maize, etc.	Quintals ..	1,235	1,300
(c) distribution of chemical ferti- lizers.	Metric tonnes	26,555	44,010
(d) short-term credit ..	Rupees ..	....	13,72,260
(2) Horticultural development loans ..	Rupees ..	22,30,785	6,00,452
(3) Crop prizes ..	Rupees ..	36,475	2,55,200
(4) Loans to <i>adivasis</i> and other back- ward classes for land development and wells.	Rupees ..	10,290	25,675
(5) Community village scheme ..	Rupees ..	32,260	37,165
(6) Farmers training scheme ..	Rupees ..	5,922	97,425
(7) Credit for special programmes of <i>kharip</i> and <i>rabi</i> crops.	Rupees ..	13,11,870	1,06,150
(8) Page scheme (seed supply, crop protection, etc.)	Rupees ..	....	14,82,405
(9) Cultivation of improved strains ..	Rupees ..	1,17,338	42,765
(10) Supply of grafts ..	Rupees ..	5,618	74,187
(11) Subsidies for chemical fertilizers—			
(a) quantity ..	Metric tonnes	2,979	1,015
(b) Value ..	Rupees ..	6,24,695	2,72,460
(12) Credit for farm fencing ..	Rupees ..	....	1,00,688
(13) Insecticides ..	Rupees ..	1,29,811	....
(14) Tractors ..	Rupees ..	2,00,842	31,015
(15) Cement supply ..	Rupees ..	6,423	....
(16) <i>Jowar</i> cultivation in <i>adivasi</i> area ..	Rupees ..	....	16,015
(17) <i>Rab</i> spraying ..	Rupees ..	....	1,49,882
(18) Credit for lift irrigation ..	Rupees ..	....	1,16,288
(19) Crop protection implements ..	Rupees ..	19,012	32,572
(20) Crop insurance ..	Rupees ..	....	1,53,286
(21) Credit for fire affected persons ..	Rupees ..	....	25,239

TABLE NO. 24—NUMBER OF JOINT-STOCK COMPANIES IN
THANE DISTRICT

Year	Companies limited by shares		Companies limited by guarantee and associations not for profit		Total
	Public	Private	Public	Private	
(1)	(2)	(3)	(4)	(5)	(6)
1966 ..	2	28	5	1	36
1970 ..	2	48	5	1	56
1971-72 ..	2	52	5	1	60
1972-73 ..	3	59	5	1	68
1973-74 ..	1	66	15	2	84
1974-75 ..	1	74	16	4	95

TABLE NO. 25—EXTENT OF EMPLOYMENT IN WHOLESALE AND
RETAIL TRADE IN THANE DISTRICT, 1971

Category of trade	Establishments	Persons employed
(1)	(2)	(3)
(1) Wholesale trade in food, textiles, live animals, beverages and intoxicants.	361	1,404
(2) Wholesale trade in fuel, light, chemicals, perfumery, ceramics and glass.	42	108
(3) Wholesale trade in wood, paper, other fabrics, hide and skin and inedible oils.	73	316
(4) Wholesale trade in all types of machinery, equipment including transport and electrical equipment.	4	22
(5) Wholesale trade in food and miscellaneous manufacturing.	127	485
(6) Retail trade in food and food articles, beverages, tobacco and intoxicants.	10,168	16,851
(7) Retail trade in textiles	1,210	2,461
(8) Retail trade in fuel and other household utilities and durables.	1,810	3,326
(9) Retail trade in other good	1,629	3,022
Total ..	15,424	27,995

TABLE No. 26—TURN-OVER OF TRADE IN PADDY AND RICE
AT REGULATED MARKETS IN THANE DISTRICT
DURING 1973-74

Serial No.	Name of market	Paddy		Rice	
		Quantity in metric tonnes	Value (Rupees in thousands)	Quantity in metric tonnes	Value (Rupees in thousands)
(1)	(2)	(3)	(4)	(5)	(6)
(1)	Shahapur ..	4,062	35,92	2,725	39,51
(2)	Murbad ..	4,221	37,16	2,919	42,33
(3)	Bhiwandi ..	2,181	18,78	1,530	23,18
(4)	Palghar ..	2,680	22,44	1,838	26,65
(5)	Vasai ..	1,300	11,00	930	13,46
(6)	Kalyan ..	1,381	11,97	730	10,59
District Total ..		15,825	1,37,27	10,672	1,55,72

TABLE No. 27—TURN-OVER OF TRADE IN AGRICULTURAL
PRODUCE AT SHAHAPUR MARKET

Year			Paddy		Rice	
			Quantity (in quintals)	Value (in rupees)	Quantity (in quintals)	Value (in rupees)
(1)			(2)	(3)	(4)	(5)
1968-69	..	..	7,04,100	5,48,000	4,92,800	49,77,000
1971-72	..	..	4,53,100	31,59,000	3,03,300	32,97,000
1972-73	..	..	83,100	5,82,000	56,800	6,36,000
1973-74	..	..	4,06,200	35,92,000	2,72,500	39,51,000
1974-75	..	..	79,400	7,70,000	53,500	1,36,000

TABLE No. 28—TURN-OVER OF TRADE IN AGRICULTURAL
PRODUCE AT BHIWANDI MARKET

Year			Paddy		Rice	
			Quantity in quintals	Value (in rupees)	Quantity in quintals	Value (in rupees)
(1)			(2)	(3)	(4)	(5)
1968-69	..	..	2,96,800	20,40,000	2,92,100	32,66,000
1969-70	..	..	3,08,200	20,82,000	7,95,000	78,61,000
1971-72	..	..	2,53,100	17,97,000	1,75,900	20,00,000
1972-73	..	..	42,500	2,96,000	29,700	3,33,000
1974-75	..	..	1,61,400	15,28,000	1,11,100	16,95,000

TABLE NO. 29—TURN-OVER OF TRADE IN AGRICULTURAL PRODUCE
AT MURBAD MARKET

Year	Paddy		Rice	
	Quantity in quintals	Value in rupees	Quantity in quintals	Value in rupees
(1)	(2)	(3)	(4)	(5)
1968-69	9,79,200	64,78,000	<i>Nil</i>	<i>Nil</i>
1970-71	8,32,800	57,58,000	5,88,400	62,67,000
1972-73	2,46,300	17,24,000	1,68,800	18,91,000
1973-74	4,22,100	37,16,000	2,91,900	42,33,000
1974-75	57,400	5,72,000	37,800	6,11,000

TABLE NO. 30—TURN-OVER OF TRADE IN PADDY AND RICE
AT PALGHAR MARKET

Year	Paddy		Rice	
	Quantity in quintals	Value in rupees	Quantity in quintals	Value in rupees
(1)	(2)	(3)	(4)	(5)
1966-67	2,01,000	12,50,100	<i>Nil.</i>	<i>Nil</i>
1969-70	7,24,000	51,91,000	4,65,100	51,15,000
1971-72	4,17,200	29,05,000	2,67,000	29,90,000
1972-73	60,800	4,25,000	39,200	4,39,000
1973-73	2,68,000	22,44,000	1,83,800	26,65,000
1974-75	1,60,200	15,20,000	1,12,100	17,15,000

TABLE NO. 31—PURCHASE AND SALE ACTIVITIES OF FISHERIES
SOCIETIES, ANIMAL HUSBANDRY SOCIETIES AND CONSUMERS
STORES IN THANE DISTRICT DURING 1968-69 AND
1973-74

(Rs. in lakhs)					
Type of societies	Purpose	Turn-over			
		1968-69	1973-74		
(1)	(2)	(3)	(4)		
(1) Fisheries societies ..	(a) Catch ..	30.41	97.10		
	(b) Sale ..	53.04	3,21.96		
(2) Animal husbandry societies—					
(i) Milk and Milk products	(a) Purchase ..	5.79	49.04		
	(b) Sale ..	9.72	52.03		
(ii) Live-stock ..	(a) Purchase ..	3.50	3.70		
	(b) Sale ..	3.89	4.28		
(3) Consumers Stores	(a) Purchase ..	4,74.96	4,07.33		
	(b) Sale ..	5,10.75	5,62.92		

TABLE No. 32—DISTRIBUTION OF ESTABLISHMENTS CLASSIFIED BY THE TYPE OF BUSINESS OR TRADE AND SIZE OF EMPLOYMENT IN THANE DISTRICT, 1971

Major group	Total		1-4 persons		5-19 persons		20 and above persons	
	Establish- ments (2)	Persons (3)	Establish- ments (4)	Persons (5)	Establish- ments (6)	Persons (7)	Establish- ments (8)	Persons (9)
1. Wholesale trade in food, textiles, live animals, beverages and intoxicants.	361	1,404	268	531	90	788	3	85
2. Wholesale trade in fuel, light, chemicals, perfumery, ceramics, glass etc.	42	108	35	54	7	52	....	....
3. Wholesale trade in wood, paper, fabrics, hides and skins and inedible oils.	76	316	53	97	16	132	4	87
4. Wholesale trade in machinery, equipment including transport and electrical equipment.	4	22	2	5	2	17	....	....
5. Wholesale trade in food and miscellaneous manu- facturing.	127	485	97	203	28	192	2	90
6. Retail trade in food articles, beverages, tobacco and intoxicants.	10,168	16,851	9,854	14,621	308	2,096	6	134
7. Retail trade in textiles	1,210	2,461	1,142	2,001	68	460	....	....
8. Retail trade in fuel and other household utilities and durables.	1,810	3,326	1,741	2,841	69	485	....	....
9. Retail trade in others	1,629	960	1,545	2,429	82	573	1	20
Total of wholesale and retail trade ..	15,427	25,933	14,737	22,782	670	4,575	16	416

TABLE No. 33—OPERATION OF PRIMARY CO-OPERATIVE MARKETING
1972-73 AND

Serial No.	Taluka	Year	Number of societies	Number of members	Value of purchases		
					Agricultural produce	Agricultural requisites	Consumers goods
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	Dahanu	1968-69	1	235	708	707	5
		1972-73	1	534	207	89	3,721
		1973-74	1	535	1,527	415	58
(2)	Talasari	1968-69	....	....	....	....	....
		1972-73	....	....	....	....	....
		1973-74	....	....	....	....	....
(3)	Mokhada	1968-69	1	187	228	....	143
		1972-73	1	188	....	45	2
		1973-74	1	189	101	....	76
(4)	Jawhar	1968-69	1	206	..	..	298
		1972-73	....	....	....	....	....
		1973-74	....	....	....	....	....
(5)	Palghar	1968-69	1	1,296	275	882	717
		1972-73	3	1,687	370	1,120	530
		1973-74	3	1,914	168	1,189	484
(6)	Wada	1968-69	1	489	227	452	..
		1972-73	1	505	....	257	1,013
		1973-74	1	571	....	263	1,122
(7)	Vasai	1968-69	1	169	..	1,162	938
		1972-73	2	2,760	102	2,150	693
		1973-74	2	2,760	375	2,716	424
(8)	Bhiwandi	1968-69	1	53	586	34	....
		1972-73	1	78	161	461	2,445
		1973-74	1	89	1,629	1,450	670
(9)	Shahapur	1968-69	1	362	....	298	1,966
		1972-73	1	372	....	10	....
		1973-74	1	371	1,049	58	1,374
(10)	Murbad	1968-69	1	125	6,478	264	705
		1972-73	1	149	....	291	1,336
		1973-74	1	155	2,036	186	60
(11)	Kalyan	1968-69	1	963	....	118	589
		1972-73	1	992	....	142	771
		1973-74	1	995	....	149	832
(12)	Ulhasnagar	1968-69	....	....	....	....	....
		1972-73	....	....	....	....	....
		1973-74	....	....	....	....	....
(13)	Thane	1968-69	1	69	....	387	....
		1972-73	1	77	69	192	209
		1973-74	1	76	484	207	....
District Total—							
(a) Primary		1968-69	11	4,154	8,502	4,304	5,361
		1972-73	13	7,342	909	4,757	10,720
		1973-74	13	7,655	7,369	6,633	5,100
(b) District level.		1968-69	1	167	190	....	6,140
		1972-73	1	157	409	2,058	23,093
		1973-74	1	164	317	2,916	24,256

SOCIETIES IN EACH TALUKA OF THANE DISTRICT DURING 1968-69,
1973-74

Value of sale		Sale of agricultural produce as agents			Agricultural requisites sold as owners and as agents		
As owners	As agents	Paddy	Other foodgrains	Others	Fertilizers	Agricultural implements	Others
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2,216	....	766	....	....	697	....	10
4,209	178	192	3,785	....	332	78	....
983	2,754	1,245	933	....	530	316	705
....
....
....
634	....	....	....	....	45	....	2
49	....	....	....	49	....	....	....
666	468	903	....	....	530	316	705
305	....	....	305	....	....	....	....
....
....
1,517	....	....	272	....	76	....	437
675	640	500	....	491	324	....	....
1,414	455	692	....	520	372	....	....
384	....	....	384	....	425	....	....
276	933	1,041	....	....	218	2	8
1,565	179	....	667	....	510	....	567
2,092	....	....	....	....	13	....	1,164
1,287	1,171	....	....	163	2,196	59	40
2,087	1,292	382	715	....	1,305	105	107
621	....	600	....	....	....	....	22
2,057	816	6	2,404	163	421	14	29
329	3,085	1,703	65	95	681	4	826
2,290	....	....	....	....	....	....	122
14	2,429	2,295	148	....	....	....	....
1,409	170	52	1,124	....	65	....	338
7,834	61	6,939	....	....	236	....	62
1,594	1,780	2,471	636	....	257	....	10
838	2,646	1,405	574	112	400	....	913
689	....	....	....	....	....	....	....
895	3,397	824	3,241	....	172	....	55
1,034	995	995	....	....	32	....	1,002
....
....
....
474	....	....	....	....	201	....	273
182	353	91	262	....	131	....	51
318	500	213	95	....	249	....	261
19,056	61	8,305	961	....	1,693	....	2,092
11,238	11,697	7,420	10,476	866	4,051	153	193
10,643	12,544	7,590	4,173	727	4,674	741	5,424
536	10,377	....	234	....	4,203	....	....
26,584	644	....	24,214	1	3,012	....	....
4,986	....	513	....	12	2,668	3	437

TABLE NO. 34—INFORMATION REGARDING VARIOUS TYPES OF RETAIL SHOPS AT VARIOUS PLACES IN THANE DISTRICT (1970)

Place	Types of shops	Total number of shops	Average number of servants	Average annual turn-over
(1)	(2)	(3)	(4)	(5)
(1) Palghar	Grocery	23	2	9,600
	Cloth	13	3	13,500
	Medical	2	2	7,500
	Stationery	5	1	1,000
	Ready-made clothes	2	2	2,000
	Hardware	7	1	2,500
(2) Dahanu Road	Grocery	30	2	2,64,200
	Cloth	18	3	3,99,000
	Hardware	9	1	12,000
	Footwear	1	2	97,000
	Medical	5	2	14,14,500
(3) Dahanu	Grocery	18	1	30,900
	Cloth	1	1	11,222
	Stationery	3	..	6,000
(4) Kasara	Grocery	10	..	46,167
	Hardware	3	..	63,000
(5) Shahapur	Cloth	..	..	2,00,000
	Grocery	30	4	2,50,000
	Radio Sets	4	..	55,000
	Medical	3	..	1,00,000
(6) Bhivandi	Medical	13	1	85,000
	Hardware	..	..	1,50,000
	Cloth	..	..	2,50,000
	Grocery	..	4	2,00,000
(7) Thane	Radio Sets	4	3	N.A.
	Electrical goods	4	6	N.A.
	Medical	22	5	N.A.
	Stationery and cutlery	30	2	N.A.
	Hardware and paints	22	5	N.A.
	Utensils	31	..	N.A.

TABLE No. 34—*contd.*

(1)	(2)	(3)	(4)	(5)
(8) Thane	Trunks and boxes ..	22	1	6,000
	Ready-made clothes ..	20	2	N.A.
	Cutpieces ..	32	4	N.A.
	Cloth ..	125	9	N.A.
	Grocery ..	200	7	N.A.
	Foot Wear ..	11	5	N.A.
	Watches ..	15	5	N.A.
	Book-depot ..	10	2	N.A.
	Coal depot ..	100	..	N.A.
	Photography goods ..	2	7	N.A.
	Bicycle ..	1	3	N.A.

N.A. = Not available.

TABLE No. 35—GOVERNMENT GODOWNS IN THANE DISTRICT
IN 1969-70

(Capacity in Metric tonnes)

Taluka	Government-owned		Government-hired		Owned by Maharashtra State Warehousing Corporation	
(1)	Number (2)	Capacity (3)	Number (4)	Capacity (5)	Number (6)	Capacity (7)
(1) Dahanu ..	3	1,500	4	250	..	..
(2) Shahapur ..	5	2,500	1	100	..	..
(3) Ulhasnagar ..	1	500	3	500	..	..
(4) Kalyan ..	5	2,500	..	..	2	1,000
(5) Thane ..	1	100	2	100	3	1,500
(6) Bhiwandi ..	3	1,500	..	..	1	500
(7) Wada ..	4	2,000	..	..	..	..
(8) Talasari ..	1	500	..	..	..	..
(9) Vasai ..	3	1,500	1	500	..	..
(10) Palghar ..	5	2,100	2	1,000	..	..
(11) Jawhar ..	4	1,100
(12) Mokhada ..	2	350
(13) Murbad ..	2	1,000
Total ..	39	17,150	13	2,450	6	3,000



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CHAPTER 7 — COMMUNICATIONS

INTRODUCTION

THE HISTORY OF THANE AND MANY IMPORTANT OLD TRADE-CENTRES in the district such as Sopara, Kalyan and Vasai, shows that from before the Christian era the creeks, forests and hills of the district were traversed by important trade-routes* passing through the important *ghats* of Sahyadris such as Thal Pass, Malsej Pass, Nana Pass, Bor Pass, Shirghat Pass, etc. But the condition of transport and communications upto the middle of the 19th century was far from satisfactory. The roads were mainly earthen tracks unsuitable for traffic in rainy season. There were also many passes and foot-paths across the Sahyadris. By the end of the last century navigation through coastal sea and creeks was much more important than inland transport, and was mainly through the Vasai, Dahanu and Thane creeks, and Ulhas and Vaitarna rivers.

The district was also served by the first railway route in India, which was opened for traffic from Bombay to Thane in 1853. This railway route was the first route not only in India but also in the East. The opening of railway communication in the district ushered in a process of economic change. Since the beginning of the 20th century considerable improvement has been made in transport by roads and railways and in communications by post, telegraphs, telephones and wireless.

Thane district is advantageously situated as regards facilities of transport and communications. All the trunk railway routes, viz., Bombay-Baroda-Delhi line, Bombay-Bhusawal-Calcutta line and Bombay-Pune-Madras line traverse through this district. These routes connect the important places in the district practically with the whole of the country. Road-routes of national importance such as the Bombay-Agra road, Bombay-Ahmadabad road, Bombay-Pune-Hyderabad road, Bombay-Konkan-Goa road and a number of State highways also pass through Thane district. Thane is closely connected with Bombay, one of the biggest industrial and commercial centres in India as well as the capital of Maharashtra and a city of international importance.

*For details refer the sections on " Old Trade Routes " in Chapter 6 and " Roads " in Chapter 7 of this Volume.

During 1971 as many as 36,284 persons were engaged in transport, storage and communications in the district, of whom 10,524 were in rural areas while 25,760 were in urban areas.

RAILWAYS

Central Railway: History: The general scheme for railway-construction in India was formulated in 1843 according to which plans were prepared for a line from Kurla to Thane, to be called "The Bombay Great Eastern Railway". The permanent way was proposed to consist of wrought-iron rails. Passengers, cattle, sheep, etc., were proposed to be carried by two daily trains in each direction, all goods being conveyed by horse-traction. Eventually horse agency was rejected in favour of locomotives for all trains, which were not to exceed a speed of ten miles an hour. This scheme was investigated by a special committee and was finally approved by the citizens of Bombay in a public meeting in the Town Hall, Bombay, on 19th April 1845, and an "Inland Railway Association" was formed for the purpose of promoting enquiries into the applicability of railway communication to this side of India. Meanwhile, the Great Indian Peninsula Railway Company was formed for the same purpose in London. In response to its suggestion an influential committee was also formed in Bombay in July 1845 to work in conjunction with the London Committee, and in August of the same year an officer was despatched to Bombay to make enquiries on the spot. After the country-side up to the *ghats* as also the *ghat* areas had been thoroughly surveyed by him, the Great Indian Peninsula Railway Company was incorporated by an Act of 1st August 1849. The East India Company entered into a contract with the Great Indian Peninsula Railway Company, London, for laying railway-lines in India in 1851.

Accordingly the first railway line in India was opened for traffic from Bombay to Thane on 16th April 1853. The opening of this railway line is one of the most important landmarks in the economic development not only of the Bombay-Thane region but also of the outlying areas and hinterland.

Bombay-Bhusawal-Nagpur Route: The year 1853 also witnessed the registration of a second contract providing *inter alia* for the construction of a line from Thane to Kalyan and from Kalyan to Shahapur (now Asangaon, 54 miles from Bombay). On the 1st May 1854, the extension to Kalyan was opened and towards the end of the year a report in favour of Thal *ghat* was submitted.*

*For details refer *Bombay City Gazetteer*, Vol. I, 1909.

The north-east branch was completed from Kalyan to Vasind on the 1st October 1855, from Vasind to Shahapur (Asangaon) on the 8th February 1860, from Shahapur to Kasara on 1st January 1861 and from Kasara to Igatpuri passing through the Thal *ghat* on the 1st January 1865.

The following statement shows the work accomplished on the incline of Thal *ghat* in 1881* :—

Particulars	Information
(1) Total length of incline	... 9 miles, 26 chains.
(2) Total rise	... 972 feet.
(3) Number of tunnels	... 13
(4) Longest tunnel	... 490 yards.
(5) Number of viaducts	... 6
(6) Largest viaduct	... 250 yards long. ... 200 feet high.
(7) Total cost	... Rs. 55,12,217.

Another tunnel in-between Thane and Mumbra, which passes through the Parsik hills, was bored in 1916. It is 4,326 feet long and is the largest tunnel in Southern India.

The Bombay-Bhusawal route and the Bombay-Pune route bifurcate at Kalyan. The former runs towards the north-east, while the latter runs towards the south-east. The Diva-Panvel route, a linking route of the western Kolaba district to Bombay, emanates from Diva junction.

The Bombay-Bhusawal route has a length of about 113 kilometres (70 miles) in the district. In the route length it has eleven stations.† They are (with their distance from Bombay V. T.): Thane (34 kilometres), Kalyan (54 kilometres), Shahad (57 kilometres), Ambivli (60 kilometres), Titwala (65 kilometres), Khadavli (72 kilometres), Vasind (80 kilometres), Asangaon (86 kilometres), Atgaon (95 kilometres), Khardi (108 kilometres) and Kasara (121 kilometres).

This is a broad gauge quadruple route and serves the needs of heavy traffic of local trains and through trains to and from the metropolitan city of Bombay. The line is electrified and the through trains are operated by electric locomotives.

There is a big marshalling yard and a loco-shed and railway workshop at Kalyan junction. Besides, there are marshalling yards at Thane and Kasara.

* *Bombay City Gazetteer*, Vol. I, 1909, p. 345.

† Besides, these are five stations in between Thane and Kalyan where only local trains stop. They are (with their distance from Bombay V.T.): Kalwa (36 km.) Mumbra (40 km.), Diva Junction (43 km.), Dombivli (49 km.) and Thakurli (50 km.)

Besides the local trains which run between Bombay and Kasara, a number of mail, express and passenger trains as given below are run on this route daily (1st October 1979) :—

- (1) Bombay-Howrah Gitanjali express,*
- (2) Dadar-Varanasi Express,
- (3) Bombay-Lucknow Janata Express,
- (4) Dadar-Nagpur (Vidarbha) Express,
- (5) Punjab Mail,
- (6) Panchavati Express,
- (7) Bombay-Calcutta Mail *via* Nagpur,
- (8) Bombay-Allahabad-Howrah-Janata Express,
- (9) Bombay-Calcutta Mail *via* Allahabad,
- (10) Bombay-Howrah Express *via* Nagpur,
- (11) Dadar-Amritsar Express, and
- (12) Bombay-Bhusawal passengers (two daily passenger trains).

Bombay-Pune Route : The Bombay-Pune railway route takes off from the Bombay-Bhusawal-Nagpur line at Kalyan and runs towards the south-east. The section of this line from Kalyan to Palasdhari was opened on 12th May 1856, and from Palasdhari to Khandala passing through the Bor pass on 14th May 1863.

This route of the Central Railway has a length of about 44 kilometres from Kalyan to Vangani. It is a broad gauge route and it has five stations in the district. They are (with their distance from Bombay V. T.) ; Viththalwadi (56 kilometres), Ulhasnagar (57 kilometres), Ambarnath (60 kilometres), Badlapur (68 kilometres) and Vangani (78 kilometres).

The common route from Thane to Kalyan is quadruple and serves the needs of heavy traffic of local trains and through trains. The entire length of this route in the district is electrified, and all the trains are operated by electric locomotives while local trains are operated by the electric motor coaches. Passengers as well as goods traffic on this line is very heavy.

The trains running on the Bombay-Pune route at present (1st October 1979) are as under :—

- (1) Deccan Express,
- (2) Bombay-Madras Janata Express,
- (3) Bombay-Miraj (Koyana) Express,
- (4) Bombay-Secunderabad Express,
- (5) Dadar-Madras Express,
- (6) Bombay-Pune Janata Express,
- (7) Trivendram Jayanti Janata Express,
- (8) Deccan Queen.

*Does not stop at any station in Thane district.

- (9) Sahyadri Express,
- (10) Mahalaxmi Express,
- (11) Bombay-Madras Mail,
- (12) Bombay-Siddheshwar Express,
- (13) Bombay-Secunderabad Minar Express,
- (14) Sinhagad Express,
- (15) Bombay-Pune Passenger and
- (16) Bombay-Daund-Manmad Passenger.

Local trains: At present (May 1980) a total of 210 local trains run to and from Bombay V. T. on the Bombay-Kasara and Bombay-Karjat routes in Thane district. Of them 103 trains are upto Thane, 33 trains upto Kalyan, sixteen trains upto Titwala, four trains upto Asangaon, five trains upto Kasara, thirty-one trains upto Ambarnath, four trains upto Badlapur and fourteen trains upto Karjat.

All the stations on the Central Railway line in Thane district are provided with booking offices and quarters for the station staff. The railway stations at Thane, Kalyan and Kasara are spacious modern buildings with waiting and refreshment rooms and tea-stalls provided for the convenience of the travelling public.

There are about ten important stations through which goods are loaded and unloaded. The important commodities that are imported in the district include industrial raw materials, chemicals, lime-stone, grocery, hardware, metalware, brass, etc., while the main commodities exported from the district include chemicals, pharmaceutical goods, electrical appliances and electronic equipments, textile goods, machinery and spare parts, live-stock, grass and salt. The details of the number of wagons loaded and unloaded and the total tonnage of goods handled at important stations in the district during 1969-70 are given in the following statement :—

Name of Station (1)	Loading		Unloading	
	Number of Wagons (2)	Weight (in tonnes) (3)	Number of Wagons (4)	Weight (in tonnes) (5)
(1) Ambarnath ..	4,217	863.4 (+9.5)*	600	1,200 (+6.15)*
(2) Mumbra ..	252	56.5	..	..
(3) Badlapur ..	12	2.7	158	37.3
(4) Dombivli ..	..	..	122	6.3
(5) Kalyan ..	3,748	749.6	6,036	1,207.2
(6) Kasara ..	4	0.7	4	0.7
(7) Asangaon ..	54	8.5	335	68.7
(8) Titawala ..	25	2.7	93	23.7
(9) Khardi ..	77	12.7	..	..
(10) Thane ..	3,975	1,348.5	11,369	2,273.8

Source.—Lead Bank Survey Report of Thane District by Bank of India, 1971

* In small packages.

Western Railway : The Western Railway formerly known as the Baroda Railway, was begun in May 1858 and the line was opened for traffic on the 28th November 1864. It runs along the coast from Bombay. The Western Railway route crosses many creeks and rivers in its course in Thane district. The bridges on the Vasai creek and the Vaitarna river are exquisite in their engineering design.

The railway enters Thane district after passing through Dahisar in Bombay and leaves for Gujarat State after passing through Gholwad.

In its length of about 101 kilometres (62 miles) in this district it has fifteen stations. They are (with their distance from Bombay Central) : Mira Road (36 kilometres), Bhayandar (39 kilometres), Naigaon (44 kilometres), Vasai Road (48 kilometres), Nala Sopara (52 kilometres), Virar (56 kilometres), Vaitarna (65 kilometres), Saphala (72 kilometres), Kelwa Road (78 kilometres), Palghar (87 kilometres), Boisar (98 kilometres), Vangaon (107 kilometres), Dahanu Road (126 kilometres) and Gholwad (131 kilometres).

The section of this railway passing through Thane district has a double line. The portion from Bombay to Valsad is electrified, and electrically-operated coaches are run for the benefit of suburban commuters up to Virar. There is a loco-shed and a safety siding at Virar.

The trains running on this line at present (1st October 1979) are as under :—

- (1) Gujarat Express,
- (2) Delhi Janata Express,
- (3) Saurashtra Express,
- (4) Jammu Tawi Express,
- (5) Pashchim Express,
- (6) Flying Ranee,
- (7) Rajdhani Express,
- (8) Saurashtra Janata Express,
- (9) Valsad Express,
- (10) Ahmedabad Janata Express,
- (11) Saurashtra Mail,
- (12) Frontier Mail,
- (13) Gujarat Mail,
- (14) Deharadun Express,
- (15) Ahmedabad Passenger,
- (16) Wadodara Passenger,
- (17) Viramgaon Passenger,
- (18) Virar-Atul Shuttle (three shuttles daily) and
- (19) Virar-Dahanu Road Shuttle (two shuttles daily).

The local train service is provided from Churchgate in Bombay to Virar, and as many as forty-five trains are run to and from Churchgate to Virar to serve the growing needs of suburban commuters. There are about eight important stations in this district where goods are loaded. The statistics of the number of wagons loaded and unloaded and the total tonnage booked at these stations in the district during 1969-70 are given in the following statement :—

Station (1)	Loading		Un-loading	
	Number of Wagons (2)	Weight (in hundred tonnes) (3)	Number of Wagons (4)	Weight (in hundred tonnes) (5)
(1) Saphala ..	1,198	90.3 (+ 0.5)*	48	8.2 (+ 7.1)*
(2) Boisar ..	4,284	394.9 (+ 1.1)*	287	52.3 (+ 3.3)*
(3) Bhayandar ..	1,838	415.4	237	51.3
(4) Mira Road ..	1,206	292.1	7	0.5
(5) Virar ..	326	70.6	687	91.9
(6) Vasai Road ..	1,549	60.7	864	174.8
(7) Dahanu Road ..	7,362	492.2	1,123	194.6
(8) Palghar ..	9,848	634.0	1,377	204.3

Source.—Lead Bank Survey Report of Thane District by Bank of India, 1971.

* In small packages (Extra).

ROADS

In the early days there were only a few made roads while most of the needs of transport were met by country roads and passes. Especially in the hilly country of Thane district there were only passes fit for pack bullocks.

At present Thane is favourably situated as regards roads. All the Express highways and national highways starting from Bombay and running through the length and breadth of India pass through Thane district. Accordingly the Eastern Express Highway, the Western Express Highway, the Bombay-Dhulia-Agra Road (N. H.),* the Bombay-Ahmadabad Road (N. H.) and the Bombay-Pune Road (N. H.) traverse through this district. These arterial routes have facilitated through traffic to all parts of India.

* N. H. = National Highway.

As at present (1977) the three national highways and the Eastern Express Highway account for a length of about 252 kilometres¹ which forms 8.56 per cent² of the length of National Highways in Maharashtra State.

The following statement shows the development of roads in Thane district since 1950-51 to 1973-74 :—

Particulars (1)	(Length in Kilometres)					
	Years					
	1950-51 (2)	1960-61 (3)	1966-67 (4)	1969-70 (5)	1971-72 (6)	1973-74 (7)
(1) Total road-length (except municipal roads).	1,570	1,549	1,500	2,137	2,313	2,620
(2) Road-length per 1,000 square kilometres of area.	164	157	199	224	242	274
(3) Road-length per lakh of population.	118	93	N.A.	N.A.	N.A.	115

N.A. = Not available.

Table No. 1 at the end of this chapter gives the statistics of roads according to category and surface in Thane district as on 31st March 1975.

In 1961-62 the road-length per 100 kilometres of area was 18.91 kilometres which increased to 30.16 kilometres per 100 square kilometres in 1970-71 and to 33.40 kilometres in 1973-74. There was also considerable improvement in the surface of the roads which can be seen from the following statement³ :—

Classification (1)	Years			
	1961-62 (2)	1965-66 (3)	1970-71 (4)	1973-74 (5)
1. Cement concrete ..	5.77	6.15	2.36	1.40
2. Black-topped ..	16.67	21.87	31.92	32.35
3. Water bound macadam ..	63.91	61.24	57.33	52.01
4. Others ..	13.65	10.70	8.19	14.24

The decline in the percentage of cement-concrete roads in 1970-71 and in 1973-74 was due to the re-surfacing of some of the roads by black-topping them.

¹ Length of Western Express Highway is negligible in Thane district.

² The corresponding percentage for the districts of Maharashtra is 3.85.

³ The figures indicate percentages to total road length in the district.

The total expenditure incurred for the several development programmes in the district during 1971-72 was Rs. 304.74 lakhs, of which an amount of Rs. 38.08 lakhs was utilized for implementing the Road Development Plan. The physical achievements during the same year included construction of three bridges and roads of fourteen kilometres length.

Table No. 4 shows the annual progress of transport and communications in Thane district during the Fourth Five-Year Plan.

The account of the various roads in the district is given below :—

National Highways : **Bombay-Agra National Highway*: This important road is a connecting link between the three States, viz., Maharashtra, Madhya Pradesh and Uttar Pradesh. This highway starts from Bombay, enters Thane at the south border of the district at mile No. 21/0, runs north-eastwards and leaves the district at mile No. 82/3 near the village Vihigaon to enter Nashik district. It traverses three talukas, viz., Thane, Bhiwandi and Shahapur. The total length of this road in the district is 61/3 miles (98.08 kilometres). From mile No. 21/0 to mile No. 24/1 it is under Thane municipal limits. It passes through the Kasara *ghat* from mile No. 74/0 to mile No. 75/7 and the Thal *ghat* from mile No. 78/0 to mile No. 82/3. It has a serpentine course through the *ghats* where the average rise is one foot in 27 feet.

The road touches the following important places in its stretch with mile numbers in brackets :—Thane (miles 21/0 to 24/1), Kasheli (miles 27/0), Bhiwandi (miles 32/7), Padghe (miles 43/0), Washind (miles 48/5), Asangaon (miles 52/3), Shahapur (miles 53/5 to 54/3), Atgaon (miles 57/7), Khardi (miles 65/3), Kasara (miles 74/1) and Vihigaon (miles 80/5).

This highway crosses the Bombay-Bhusawal line of the Central Railway at five places during its stretch (in Shahapur taluka) at mile No. 52/3 (level crossing) near Asangaon, mile No. 64/5 (under bridge)

* It is difficult to mention the period of construction and nomination of the original Agra road which was started from Bhiwandi. The history of Sopara, Kalyan, Thane and Sanjan (now in Gujarat State) shows that even before the beginning of the Christian era, the creeks, forests and hills of Thane were crossed by important trade routes. The famous trade-centre in ancient period, Sopara (1300 B. C.—A.D. 1300), besides its water communications by the Vaitarna river and the Vasai creek, had two mainland routes, one north-east by Saiwan and Vajrabai along the left bank of the Tansa to the Thal pass and Nashik, the other south-east by Kaman through Bhiwandi and Kalyan by the Malsej and Nana passes to Junnar and Paithan. Some part of the former route (after making some modifications) formed a portion of the Agra road in the district. This road was very important as a trade and military route in the days of the Shilahar, Yadav, Muslim, Mughal and Maratha rulers. Before construction of the railway line in the district this road was used as a route for military movements from Bombay to Nashik. To improve the route by Bhiwandi through Thal pass to Igatpuri, twelve miles of approaches, from Khardi to Kasara, were constructed between 1850 and 1858 by the British Government which carried the road beyond Kasara to Igatpuri making one of the best engineered roads in Western India.

near Khardi, mile No. 70/3 (level crossing) near Shirol, mile No. 72/7 (under bridge) and mile No. 73/8 (over bridge) near Kasara.

It crosses the following rivers or *nalas* where there are bridges, at mile No. 38/6 on the Tansa river, at mile No. 43/1 on the Kumbheri *nala*, at mile No. 44/5 on the Dohala *nala*, at mile No. 47/5 on the Sarmala river, at mile No. 53/6 on the Bhavangi river, at mile No. 59/3 on a *nala* near Kanvinde, at mile No. 67/3 on a *nala* near Golhane, at mile No. 68/2 on a *nala* near Shirol, at mile No. 72/0 near Mokhavane and two other *nalas* in Kasara *ghat* at mile No. 75/1 and mile No. 78/2.

Many roads either take off from it or are crossed by it, of which below-mentioned are more important :—

Place of junction	Name and class of road
Thane	... (1) Eastern Express Highway. (2) Bombay-Pune (N.H.). ¹ (3) Thane-Ghodbunder (S.H.). ² (4) Pokhran Tank road (Industrial road). (5) Thane-Belapur road (Industrial road). (6) Thane-Kolshet (Industrial road).
Bhiwandi	... (1) Bhiwandi-Pardi (M.D.R.). ³ (2) Bhiwandi-Wada (S.H.). ² (3) Vasai-Bhiwandi-Kalyan-Murbad-Vaishakhare (S.H.). ²
Shahapur	... Shahapur-Dolkhamb (M.D.R.). ³
Atgaon	... Kone-Aghai-Atgaon (M.D.R.). ³
Khardi	... Jawhar-Jhap-Khardi (M.D.R.). ³
Vihigaon	... Khodala-Mokhada-Vihigaon (M.D.R.). ³

¹ N. H. = National Highway.

² S. H. = State Highway.

³ M.D.R. = Major District Road.

The entire length of this road in the district has a black-topped surface except some portion in the *ghats* which has a surface of bituminous macadam with asphaltic concrete. The entire length of this road has a width of twenty-three feet and is motorable throughout the year though the average rainfall in the district is 125 inches.

Ahmadabad-Bombay road: This is also a very important artery of traffic which starts from Ahmadabad and enters Thane district after traversing through Surat district of Gujarat. Prior to the construction of the Manor-Ghodbunder link road it passed through Wada, Bhiwandi and Thane upto Bombay. The construction of the link road as above

has cut-short quite a long distance. Under the programme of facilitating speedy traffic to the Bombay Metropolis the portion of the road from Ghodbunder to Bombay is constructed to the standard of an express highway which has facilitated speedy traffic.

It enters Talasari taluka at 375.39 kilometres near Achhad on the State border, runs southwards and leaves for Bombay at 496.37 kilometres near Dahisar. This road traverses the Talasari, Dahanu, Palghar, Vasai and Thane talukas for a total length of about 121 kilometres.

The road crosses a number of rivers and creeks where there are bridges at 490.50 kilometres on the Vasai creek ; 483.70 kilometres on the Kaman creek ; 465.20 kilometres on the Tansa river ; 448.60 kilometres on the Vandri river ; 437.00 kilometres on the Vaitarna river ; 417.68 kilometres on the Chinchpada *nala* ; 412.26 kilometres on the Gulsari *nala* ; 403.64 kilometres on the Surya river ; 395.53 kilometres on the Halad *nala* and 361.36 kilometres on the Varoli *nala*. The bridge on the Vasai creek deserves special mention because of its engineering excellency. It is a pre-stressed R.C.C. bridge with box type girders for central spans and pre-cast pre-stressed R.C.C. 'T' girders for other spans. All the other bridges are R.C.C. bridges

It touches the following towns and villages :—Dahisar (496.37 kilometres), Mira (495.37 kilometres), Kashi (495.17 kilometres), Sasunavghar (490.27 kilometres), Juchandra (485.77 kilometres), Manor (434.37 kilometres), Kasa (411.26 kilometres), Charoti (413.37 kilometres), Amboli (401.37 kilometres), Talasari (389.37 kilometres) and Achhad (379.39 kilometres).

The following roads either take off from it or are crossed by it :—

Place of junction	Name and class of road
(1) Ghodbunder ...	Ghodbunder-Thane (S.H.).
(2) Kolhi ...	Vasai-Sativali-Bhiwandi (proposed S.H.).
(3) Sativali ...	Vasai-Sativali (S.H.).
(4) Valiv ...	Vasai-Ambadi (S.H.).
(5) Shirgaon ...	Vasai-Ambadi (S.H.).
(6) Kaner ...	Arnala-Agashi-Bolinj-Virar-Kaner (proposed S.H.).
(7) Manor ...	Mahim-Manor-Wada-Shirghat (S.H.).
(8) Kasa ...	Dahanu-Jawhar-Mokhada-Trimbak (S.H.).
(9) Talasari ...	Sanjan-Talasari-Udhava-Kasa-Ghol (M.D.R.).

The entire length of this road has a black-topped surface and is motorable throughout the year.

Bombay-Pune-Bangalore Road : This road starts from Bombay and enters Thane at mile No. 23/0. It runs north-eastwards upto Mumbra after which it runs south-eastwards and leaves the district at mile No. 33/6 near Dahisar village. It traverses only Thane taluka for a total length of 17.70 kilometres.

There are three major bridges over this road, viz., at mile No. 23/3 on the Thane creek near Kalwa village, at mile No. 26/5 over the suburban railway line near Mumbra and at mile No. 27/4 across the through railway line of the Central Railway.

This road touches Thane town (mile No. 23/0), Kalwa town (mile No. 23/3), Mumbra (mile No. 27/3), Shil (mile No. 30/6) and Dahisar (mile No. 33/6).

The following roads either take off from it or are crossed by it :—

Place of junction	Name and class of road
(1) Thane	... Bombay-Agra (N.H.).
(2) Kalwa	... Thane-Belapur (Industrial road).
(3) Shil	... Kalyan-Shil (Industrial road).

The entire surface of this road in the district is black-topped and is motorable throughout the year.

Besides the old alignment of this road as described above, a new link road has been constructed from Chembur which meets the former a little north of Panvel. It was opened for traffic in 1972. It touches Sion, Chembur, Trombay and Mankhurd in Greater Bombay and Washi and Turbhe in Thane taluka. Its total length from Washi to Kolaba district border is about ten kilometres. This road saves a journey of twenty-five kilometres from Bombay to Panvel. The entire surface of this road is black-topped, and to say the least, it is a pleasure to drive along it.

Eastern Express Highway : This highway is an important artery of traffic from and to Bombay which has not only relieved the transport bottleneck on the Bombay-Agra road but has also facilitated very speedy traffic from Bombay to Thane. It has been constructed in conformity with the standards of an "express highway" and has the least number of obstructions in the form of road crossings or approach roads. A major portion of this highway is within Greater Bombay limits. It starts from Sion in Bombay and runs north-eastwards more or less parallel to the Central Railway. It passes through Chembur and Vikhroli in Bombay, and enters Thane district at 19 kilometres at Kopari. It also crosses the Bombay-Agra National Highway at 19.6 kilometres in Thane. It runs on the outskirts of Thane town to join the Bombay-Agra road again. It covers a length of 5.7 kilometres in

Thane. It has a black-topped surface with a width of 48 feet. This road was opened for light vehicles in February 1964 and for heavy vehicles in April 1967. Its cost is estimated to the tune of Rs. 333 lakhs.

State Highways: There are fourteen State highways in the district, viz., (1) Dahanu-Jawhar-Mokhada-Trimbak-Nashik road, (2) Jawhar-Pali-Apti road, (3) Mahim-Manor-Wada-Shirghat-Nashik road, (4) Kalyan-Bhiwandi road, (5) Vasai-Sativali road, (6) Vasai-Ambadi road, (7) Kalyan-Murbad-Vaishakhare road, (8) Bhiwandi-Wada road, (9) Shahapur-Shendrun road, (10) Murbad-Mhasa road, (11) Ghodbunder-Thane road, (12) Mokhada-Khodala-Vihigaon road, (13) Arnala-Agashi-Bolinj-Virar-Chandansar-Kaner road and (14) Pune-link road. The account of these roads is given below :—

Dahanu-Jawhar-Mokhada-Trimbak-Nashik road: The State highway starts from Dahanu, a port on the western coast, runs in west to east direction for a total length of 58 miles (93 kilometres) in the district and enters in Nasik district at mile No. 58/0. The road traverses three talukas in the district, viz., Dahanu, Jawhar and Mokhada. It crosses the Western Railway in mile No. 1/1 near Dahanu Road railway station.

This State highway touches the following towns and villages in its stretch at mile numbers given against each. Malyan 2/2 miles; Ranshet 12/0 miles; Charoti 14/5 miles; Kasa 15/4 miles; Talvada 19/4 miles; Sava 27/5 miles; Jawhar 38/0 miles and Mokhada 50/3 miles.

The road crosses two important rivers, viz., the Surya and the Wagh. It crosses the Surya river in mile No. 15/5 near Kasa village and the Wagh river in mile No. 49/1 near Mokhada. Bridges are constructed across the above rivers.

The following roads either take off from it or are crossed by it :—

Place of junction	Name and class of road
(1) Dahanu ...	(i) Dahanu-Boisar-Palghar (M. D. R.) (ii) Dahanu-Chikale-Gholvad (M. D. R.)
(2) Ranshet ...	Chinchani-Ranshet (M. D. R.)
(3) Charoti ...	Bombay-Ahmedabad (N. H.)
(4) Kasa ...	Talasari-Udhava-Kasa (M. D. R.)
(5) Talvada ...	Talvada-Vikramgad (M. D. R.)
(6) Jawhar ...	(i) Jawhar-Apti-Pali (S. H.) (ii) Jawhar-Sarsum (M. D. R.) (iii) Jawhar- Khardi (M. D. R.)
(7) Mokhada ...	Mokhada-Khodala-Vihigaon (S. H.)

Of the total length of 58 miles of this road in the district, a length of fifteen miles and four furlongs (25·80 kilometres) from Dahanu to Kasa has a cement-concrete surface ; ten miles and three furlongs (16·7 kilometres) from Kasa to Sava has a water-bound macadam surface ; eight miles four furlongs (13·6 kilometres) from Sava to Jawhar has a black-topped surface ; twelve miles and three furlongs (twenty kilometres) from Jawhar to Mokhada has a water-bound macadam surface and the rest of seven miles and five furlongs from Mokhada to Nasik district border is under construction. The road portion from Dahanu to Mokhada is motorable throughout the year.

Jawhar-Pali-Apti road : This State highway starts from Jawhar, runs south-westward upto Sakhare village after which it runs westwards upto Vikramgad, and thence towards the south upto Apti for a total length of twenty-six miles (41·67 kilometres). It runs in common with the Dahanu-Jawhar-Mokhada-Trimbak-Nasik road for a distance of three miles and four furlongs (5·47 kilometres). It traverses only Jawhar taluka and meets the Mahim-Manor-Wada-Shirghat State highway near Apti on the border of Wada taluka. The road does not cross any big river in its stretch.

It touches the following towns and villages in its stretch :—old Jawhar (miles 3/5), Sakhare (miles 10/0), Vikramgad (miles 16/2), Alonde (miles 19/6), Utavali (miles 22/1) and Apti (miles 26/0).

The Vikramgad-Talwada road, a major district road, emanates from this road at Vikramgad near mile No. 16/2 of this road.

The entire surface of this road is water-bound macadam with an exception of a length of 0·40 kilometres which is black-topped. It is motorable throughout the year.

Mahim-Manor-Wada-Shirghat road : This State highway starts from Mahim, a minor port on the western coast, runs north-eastwards upto Palghar, eastwards upto Manor, south-eastwards upto Kanchand, eastwards upto Wada and north-eastwards upto Nasik district border. This road traverses Palghar, Wada and Mokhada talukas for a total length of about 103 kilometres and enters Nasik district at mile No. 64/3.

In its run the State highway touches the following places : Palghar 5/0 miles, Manor 16/0 miles, Pali 29 miles, Wada 35/0 miles and Khodala 60/0 miles.

The road crosses four important rivers where there are bridges at 14/0 mile on the Surya river, at 17/0 mile on the Hath river, at 19/0 mile on the Daharje river and at 30/0 mile on the Pinjal river.

The following roads either emanate from it or are crossed by it :—

Place of junction	Name and class of road
(1) Mahim	... Mahim-Safala-Mande-Tembhi (M. D. R.) .
(2) Palghar	... Palghar-Boisar-Chinchani-Dahanu (M. D. R.) .
(3) Manor	... Bombay-Ahmadabad (N. H.) .
(4) Pali	... Jawhar-Pali (S. H.) .
(5) Wada	... Bhiwandi-Wada (S. H.) .
(6) Parali	... Jawhar-Khardi (M. D. R.) .
(7) Khodala	... Mokhada-Khodala-Vihigaon (M. D. R.) .

Of the total length of sixty-four miles and three furlongs, a length of thirty-five miles from Mahim to Wada has a black-topped surface and the rest of twenty-nine miles and three furlongs has a water-bound macadam surface. It is motorable throughout the year.

Kalyan-Bhiwandi road : This State highway starts from Kalyan, and runs towards north-west for a total length of five miles and two furlongs (8.5 kilometres) upto Bhiwandi. It crosses the Ulhas river between mile No. 1/2 and 1/3, where there is a bridge.

It touches Ken (mile 1/5) and Bhiwandi (mile 5/2).

The length of 4/6 kilometres of this road is cement-concrete whereas the remaining one is black-topped. The road is motorable throughout the year.

Vasai-Sativali road : This highway starts from Vasai, runs north-eastwards upto Valiv village where it crosses the Bombay-Ahmadabad National highway and thence south-eastwards upto Sativali for a total distance of 11.2 kilometres. It crosses the Western Railway in mile No. 3/7 to the north of Vasai Road railway station.

The touches Manikpur town in mile No. 3/5 and Sativali village in mile No. 7/0.

Of the total of 11.2 kilometres, a length of 3.6 kilometres between Vasai and Manikpur has a cement-concrete surface whereas the remaining portion has a black-topped surface. This road is motorable throughout the year.

It is proposed to extend this road from Sativali to Bhiwandi.

Vasai-Ambadi road : This road runs in common with the Vasai-Sativali State highway from Vasai to Naukhivare in mile No. 7/4. From Valiv in mile No. 8/6 upto Shirsad in mile No. 12/1 it again runs in common with the Bombay-Ahmadabad road upto mile No. 12/1. It runs eastwards from Shirsad to Ambadi as the Bhiwandi-Wada State highway. This road traverses the Vasai and Bhiwandi talukas for a total length of about forty-three kilometres.

The road crosses the Western Railway near Manikpur. It crosses a small creek at mile No. 4/6 and the Saitani river at mile No. 23/3 where there are bridges.

It touches the following towns and villages :—Manikpur (mile No. 3/5), Gokhivare (mile No. 7/4), Valiv (mile No. 8/6), Shirsad (mile No. 12/1), Mandavi (mile No. 12/7), Ganeshpuri (mile No. 21/4), Vajreshwari (mile No. 22/2) and Ambadi (mile No. 26/1).

The following roads either take off from this road or are crossed by it :—

Place of junction	Name and class of road
(1) Vasai ...	Vasai-Nirmal-Sopara-Bolinj (M.D.R.) .
(2) Gokhivare ...	Vasai-Sativali (S. H.) .
(3) Valiv ...	Bombay-Ahmadabad (N. H.).
(4) Ambadi ...	(i) Bhiwandi-Wada (S. H.) . (ii) Ambadi-Padghe (M. D. R.)

Of the total of forty-three kilometres of this road, the length of 3.60 kilometres has a cement-concrete surface and the remaining length of 39.40 kilometres has a black-topped surface.

Kalyan-Murbad-Vaishakhare road : Starting from Kalyan, this road runs towards the east upto Vaishakhare for a total length of 54.20 kilometres. It crosses the Bombay-Bhusawal Central Railway route near Shahad railway station.

The road crosses a number of rivers and *nalas* where there are submersible bridges except the river Kankavira. The bridges are located at the following places : mile No. 6/2 on the Ulhas river, mile No. 17/0 on the Murbad river, mile No. 21/0 on the Shirwala *nala* and mile No. 28/2 on the Doifodi river. It also crosses the Kankavira river in mile No. 35/0 where there is no bridge. The road touches the following places : Goveli (mile No. 10/4), Murbad (mile No. 18/4), Saralgaon (mile No. 25/4), Tokavade (mile No. 33/4) and Vaishakhare (mile No. 35/0).

The following roads either emanate from it or are crossed by it :—

Place of junction	Name and class of road
(1) Murbad ...	Murbad-Mhasa (S. H.) .
(2) Khutal ...	Khutal-Shenwa (M. D. R.) .
(3) Umroli ...	Umroli-Dhasai (M. D. R.) .
(4) Tokavade ...	Tokavade-Shiroshi-Dolkhamb (M.D.R.)
(5) Vaishakhare ...	Vaishakhare-Naneghat (M. D. R.) .

The portion of 1.4 kilometres of this road near Kalyan is cement-concrete. The further length of 42.60 kilometres has a black-topped surface and the rest of 10.20 kilometres has a water-bound macadam surface. Traffic on this road is interrupted during heavy rains at the Ulhas, Doifodi, Shirwala and Kankavira rivers.

This road is being extended to Ahmadnagar through the Malsej *ghat* which has been opened for traffic since 1974. The importance of the opening of this *ghat* lies in the fact that it will reduce the distance between Bombay and the up-*ghat* towns of Ahmadnagar, Aurangabad, Junnar and many other towns by about fifty kilometres.

Bhiwandi-Wada road : This is an important link road between the Bombay-Agra road and the Mahim-Manor-Wada-Shirghat-Nashik road. In fact it was part of the old Bombay-Ahmadabad National highway which has recently been diverted and connected to the Western Express highway and its extension upto Manor.

Its alignment from Bhiwandi to Wada is from south to north with a length of twenty-four miles and four furlongs (41.3 kilometres). It touches the following places at mile numbers* indicated in brackets :— Bhiwandi (mile No. 33/4), Angaon (mile No. 38/1), Ambadi (mile No. 54/2), Kudus (mile No. 49/5) and Wada (mile No. 59/0).

This road crosses the Kanvari river in mile No. 33/8 near Bhiwandi, the Charmold river in mile No. 39/3, the Saitani river in mile No. 43/3, the Tansa river in mile No. 46/1 and the Vaitarna river in mile No. 57/1. There are bridges at all the above places.

The following roads either take off from it or are crossed by it :—

Place of junction	Name and class of road
(1) Bhiwandi ...	(i) Bombay-Agra (N. H.) . (ii) Kalyan-Bhiwandi (S. H.) . (iii) Vasai-Sativali-Bhiwandi (proposed S. H.) . (iv) Bhiwandi-Parol (M. D. R.) .
(2) Ambadi ...	Vasai-Ambadi (S. H.)
(3) Kone ...	Kone-Aghai-Atgaon (M. D. R.)
(4) Wada ..	Mahim-Manor-Wada-Nashik (S. H.)

The entire surface of this road is black-topped and is motorable throughout the year.

Shahapur-Murbad-Mhasa-Chauk road : It starts from Shahapur on the Bombay-Agra road and runs in the eastern direction upto Khutghar

* This State Highway takes off at mile No. 33.4 of the Bombay-Agra Nation Highway and its mile numbers are counted from G.P.O., Bombay.

and thence towards the south upto Mhasa. It traverses the Shahapur and Murbad talukas and covers a distance of about twenty-five miles in the district. It crosses the Bhatsa river, Lenad and Nandgaon nalas, Kahi river as also the Barli river. It touches Khutghar, Shendrun, Murbad and Mhasa.

The Shahapur-Dolkhamb major district road emanates from it at Khutghar, while the Kalyan-Murbad-Vaishakharc road crosses it at Murbad.

This road is proposed to be extended upto Chauk near Karjat in Kolaba district. Its portions from Lenad to Murbad and from Mhasa to Chauk are however, under construction at present. Traffic on this road is interrupted several times during rainy season. The Murbad-Mhasa section is, however, motorable throughout the year.

Ghodbunder-Thane road: This road starts from Ghodbunder on the Bombay-Ahmedabad highway and runs towards east parallel to Vasai creek upto the village Chene, after which it runs south-eastwards upto Thane. The road traverses only Thane taluka for a total length of about twenty kilometres. It touches Kashi, Chene, Ovale and Manpada. It crosses the Eastern Express highway on the outskirts of Thane town.

It is motorable throughout the year.

Mokhada-Khodala-Vihigaon road: Starting from Mokhada this road runs south-westwards upto Dolhare, and then southwards and south-westwards upto Vihigaon for a total length of twenty-seven miles (43·2 kilometres). It traverses Mokhada and Shahapur talukas and meets the Bombay-Agra National highway at Vihigaon.

It touches Palsunde (8/0 miles), Dolhare (11/6 miles), Khodala (10/5 miles), Udhale (18/6 miles), Karegaon (22/4 miles) and Vihigaon (27/0 miles).

It crosses the Wagh river in mile 4/6, the Jinjal river near Palsunde village in mile 7/3, the Devkhamb river near Khodala in mile 14/2, the Garge river near Khodala in mile 16/6 and the Vaitarna river near Karegaon in mile 24/2.

The following roads either take off from this road or are crossed by it :—

Place of junction	Name and class of road
(1) Mokhada	... Dahanu-Jawhar-Mokhada-Trimbak (S.H.).
(2) Khodala	... Mahim-Manor-Wada-Nasik (S. H).
(3) Vihigaon	... Bombay-Agra (N.H.).

The entire surface of this road is water-bound macadam and motorable throughout the year.

Arnala-Agashi-Bolinj-Virar-Chandansar-Kanher road: This road starts from Arnala port on the western coast and runs in a zig-zag manner through Agashi, Bolinj, Virar, Chandansar and Kanher to meet the Bombay-Ahmadabad road. The road traverses only Vasai taluka for a total length of thirteen miles and one furlong (20.92 kilometres). It crosses the Western Railway in mile No. 6/0 near Virar railway station.

The road crosses the Vasai creek in mile No. 4/5 near Bolinj where there is a bridge. It touches Agashi (mile No. 2/0), Bolinj (mile No. 4/0), Virar (mile No. 6/0), Chandansar (mile No. 8/0) and Kanher (mile No. 12/0).

Before 1961 this was an other district road. It was subsequently upgraded as a highway as it serves Arnala port by linking it with the Virar station and the Bombay-Ahmadabad road.

Pune link road: This road serves as a link between the two National highways, viz., the Bombay-Agra road and the Bombay-Pune road. It starts from Castle Mills on the Bombay-Agra road and meets the Bombay-Pune road which is at a distance of five kilometres. The entire surface of this road is black-topped.

Roads in Thane Industrial Area: These roads are under the jurisdiction of Public Works Department of the State Government. They are designed to provide infrastructure facilities for industrial development in the developing industrial area in the Thane belt. They conform to the standard of National highways as regards construction and maintenance. There are five such roads, viz., (1) Thane-Kalwa-Belapur road, (2) Pokharan road, (3) Kolshet road, (4) Kalyan-Shil road and (5) Kalyan-Kulgaon (Badlapur station) road.

Thane-Kalwa-Belapur road: This road emanates from Kalwa on the Bombay-Pune road to run towards the south upto Belapur for a distance of sixteen miles and a furlong (25.80 kilometres).

Of the total of 25.80 kilometres, the length of 1.60 kilometres is within Thane municipal limits and the remaining 24.20 kilometres is under the jurisdiction of the Public Works Department.

The entire road is black-topped and is motorable throughout the year.

Pokharan Road: It starts from the junction of the Bombay-Agra road with the Ghodbunder-Thane road and runs north-westwards upto Pokharan tank from where it proceeds south-eastwards upto Eastern Express highway. This road runs through the industrial area on the north of Thane city for a total distance of 4.8 kilometres. It is black-topped and motorable throughout the year.

Kolshet road : It also starts from the junction of Bombay-Agra and Ghodbunder—Thane roads and runs north-eastwards upto Kolshet through the Kolshet industrial area for a length of 3.40 kilometres. The entire road is black-topped and motorable throughout the year.

Kalyan-Shil road : Starting from Kalyan it runs south-westwards upto Shil on the Bombay-Pune road at mile No. 30/6. It crosses the Bombay-Bhusawal railway line between Kalyan and Thakurli and the Diva-Panvel railway line near Shil. This road traverses through the industrial area in Kalyan and Thane talukas for a total length of 19.30 kilometres and touches Manpada (mile No. 5/0) and Shil (mile No. 12/1).

This road has a black-topped surface and is motorable throughout the year.

Kalyan-Kulgaon road : This road starts from mile No. 0/4 of the Kalyan-Murbad-Vaishakhare road and runs south-eastwards upto Kulgaon (Badlapur railway station). It crosses the Bombay-Bhusawal railway line near Shahad station and runs parallel to the Bombay-Pune railway line. It also crosses the Valdhuni river in mile No. 0/6 where there is a bridge across the river. It touches Ulhasnagar (mile No. 2/0), Ambarnath (mile No. 4/0) and Kulgaon (mile No. 8/5).

Of the total of 13.68 kilometres, the length of two kilometres has a cement-concrete surface, that of 8.40 kilometres has a black-topped surface and the remaining one has a water-bound macadam surface.

It is motorable throughout the year.

Major District Roads : Major District Roads are important roads in the district which connect market centres and towns with railways and highways. They are also roughly of the same specifications as State highways except that their surface may not be of the laid pattern and fully bridged. Formerly most of these roads were under the jurisdiction of the Public Works Department, which are now maintained by the Zilla Parishad. The account of these roads is given below :—

Sanjan-Talasari-Udhava-Kusa road : This road starts from Sanjan, a railway station in Talasari taluka, on the border of Maharashtra with Gujarat State and runs south-eastwards upto Udhava, after which it runs southwards and south-westwards upto Ghol on the Bombay-Ahmadabad road. The road passes through the Karambili *ghat* or Girgaon *ghat* between Sanjan and Girgaon, and runs through the hilly tracks upto Udhava. This road traverses Talasari and Dahanu talukas for a total length of 56.21 kilometres (35.1 miles).

It crosses the Zai *nala* near village Zai, the Udhava *nala*, the Kalambevi river and the Theronda *nala*. There is a high-level bridge across the Kalambevi river constructed in 1971 while the *nala* crossings have submersible bridges.

This road touches Girgaon, Kawade, Talasari and Udhava in Talasari and Saiwan, Gangodi, Nimbapur, Dharampur, Vaghadi, Kasa and Ghol in Dahanu taluka.

Dahanu-Gholvad-Bordi-Zai to State Border road: It starts from Dahanu and runs towards north, parallel to the Western Railway upto Zai for a total length of 18.50 kilometres. It touches Dahanu, Chikhale, Gholvad, Gholvad Railway Station, Bordi and Zai in its stretch.

The length of 15.30 kilometres from Dahanu to Bordi is already under use while the remaining one from Bordi to Zai is under construction.

Tarapur fort road: It starts from mile No. 14/4 of the Palghar-Boisar-Chinchani-Dahanu road near Tarapur (Nandgaon) and runs westwards upto Tarapur fort for a length of 1.60 kilometres. It is black-topped and motorable throughout the year.

Haladpada-Modgaon-Udhava-Kodad road: This road starts from Haladpada on the Bombay-Ahmadabad road and runs eastwards upto Modgaon, north-eastwards upto Udhava and thence towards the north upto Kodad on the State border. It traverses the Dahanu and the Talasari talukas for a total length of sixteen kilometres and touches Modgaon (mile 4/6), Udhava (mile 7/6) and Kodad (mile 10/0). The road crosses the Talasari-Udhava-Kasa road at mile No. 7/6.

The length of 8.45 kilometres from Kodad to Modgaon has a water-bound macadam surface and that from Haladpada to Modgaon is under construction.

Jawhar-Jamsar-Sarsun-Vangani road: It starts from Jawhar at mile No. 38/0 of the Dahanu-Jawhar-Mokhada-Trimbak road and runs towards the north upto Vangani where it meets the Mokhada-Asa-Vangani-Dadhari road.

The road touches Jawhar, Jamsar, Hiradpada, Sarsun, in Jawhar taluka and Vangani in Mokhada taluka.

A length of about ten kilometres from Jawhar to Sarsun is under use while the rest of it is under construction.

Saivan-Talasari-Sakharshet-Dadhari-Vavar road: Starting from Saivan on the Talasari-Kasa road, this road runs towards east upto Dadhari, and proceeds further to Vavar on the district border for a total length of 40.60 kilometres.

It touches Saivan, Sukadamba and Kinhavali in Dahanu taluka and Talasari, Sakharshet, Dadhari and Vavar in Mokhada taluka. The Jawhar-Sarsun-Vangani road meets this road at Vangani.

A portion of fifteen kilometres from Saivan to Sukadamba is water-bound macadam, while the further section is under construction.

Boisar-Alewadi road: This road emanates from Boisar at mile No. 8/0 of the Palghar-Boisar-Chinchani-Dahanu road and runs

towards west upto Pamtembhi village and further towards south-west upto Alewadi. It traverses only Palghar taluka for a total length of 10.06 kilometres. The entire surface of this road is water-bound macadam and motorable throughout the year.

Chinchani-Vangaon-Ranshet road: This road starts from Chinchani on the Palghar-Boisar-Chinchani-Dahanu road and runs to the east upto Ranshet where it meets the Dahanu-Jawhar-Mokhada-Trimbak road at mile No. 11/0 of the latter. It crosses the Western Railway at mile No. 5/0 and three *nalas* in mile Nos. 7/5, 9/5 and 11/1, respectively, where there are submersible bridges. It touches Dabhale, Gowane, Shelti, Pimpalshet Kh. and Ranshet.

Total length of this road is 25.63 kilometres which is only through Dahanu taluka.

Jawhar-Jhap-Khardi road: This road emanates at mile No. 38/0 of the Dahanu-Jawhar-Mokhada-Trimbak road, runs southwards upto Parali, after which it runs south-eastwards upto Khardi on the Bombay-Agra National Highway. The road traverses, Jawhar, Wada and Shahapur talukas for a total length of 50.90 kilometres* of which the length of 18.7 kilometres from Parali to Khardi is existing and the remaining one of 32.19 kilometres from Jawhar to Parali is under construction.

The road crosses a *nala* near Parali where a bridge was constructed in 1950.

It touches Pathardi, Kaulale and Jhap, in Jawhar taluka, Parali in Wada taluka and Belavad, Tembhe, Ambivali, Dahigaon, Palshin, Pimpalpada and Khardi in Shahapur taluka. It crosses the Mahim-Manor-Wada-Shirghat road near Parali.

Palghar-Boisar-Chinchani-Dahanu road: This road starts from Palghar at mile No. 5/0 of the Mahim-Manor-Wada-Shirghat road, runs in north direction, parallel to Western Railway by west upto Boisar, after which it runs north-westwards upto Tarapur and thence again towards the north upto Dahanu. It traverses Palghar and Dahanu talukas for a total length of 37.63 kilometres.

The road crosses the Dudh *nala* in mile No. 2/1 near Kurgaon village where a bridge was constructed in 1972, Panchali creek in mile No. 4/6 and Betegaon *nala* in mile No. 5/1. Both the latter places have bridges, constructed in 1942. It also crosses the Kurgaon *nala*, Banganagar creek and Chinchani creek. The Kurgaon *nala* bridge was constructed in 1972, the Banganagar creek bridge in 1964 and the Chinchani creek bridge in 1968.

*Proposed length according to Road Development Plan, 1961-1981.

The road touches Morekuran, Umroli, Panchali, Saravali, Boisar, Kurgaon and Tarapur in Palghar taluka and Chinchani, Varor Badapokharan and Dahanu in Dahanu taluka.

Mahim-Safala-Mand-Tembhi-Khodave road: The road starts from Mahim and runs in north direction upto Tembhi-Khodave. It traverses only Palghar taluka for 23.67 kilometres and touches Mahim, Kelwa, Makunsar, Umbarpada, Safala, Jalsar and Tembhi-Khodave in its stretch.

The road crosses the Makunsar creek over a bridge 30 feet high, 22 feet wide and 455 feet long as also the Safala creek near Safala. Both the bridges were constructed in 1956.

Palghar-Kharekuran-Nandgaon road: This road starts from Tembhode on the Mahim-Manor-Wada-Shirghat State highway and runs north-eastwards upto Nandgaon. It traverses only Palghar taluka for a total length of 10.26 kilometres and touches Palghar, Tembhode, Kharekuran and Murabe.

It crosses the Satpati creek near Murabe where there is a submersible bridge.

It serves as a connecting link between the Tarapur port, and the Mahim-Manor-Wada State highway as also Bombay-Ahmadabad railway line.

Kone-Aghai-Atgaon road: This road starts from Kone at mile No. 54/4 of the Bhiwandi-Wada State highway and runs south-eastwards for a total length of 27.35 kilometres upto Atgaon on the Bombay-Agra National Highway at mile No. 59/0. It touches Kone, Savarkhand, Abitghar, Kambare and Chendavali in Wada taluka and Waghivali, Nevare, Aghai, Mohili, Waveghar, Tansa, Taharpur and Atgaon in Shahapur taluka.

It crosses the Tansa river near its source between Mohili and Waveghar. It runs along the Tansa lake from Aghai to Taharpur.

Its length of 12.35 kilometres from Atgaon to Aghai has a black-topped surface and the remaining one has a water-bound macadam surface.

Kasara-Vashale-Dolkhamb road: Starting from Kasara at mile No. 73/6 of the Bombay-Agra road this road runs south-eastwards through the hilly tracks upto Dolkhamb for a total length of 22.53 kilometres where it meets the Shahapur-Shenva-Dolkhamb-Rajur road. It traverses only Shahapur taluka and touches Kasara, Vashale, Pingalwadi, Jambhulwad and Dolkhamb.

It crosses the Bhatsa river in mile No. 2/4 near Kasara where there is a bridge.

Shahapur-Shenva-Dolkhamb-Rajur road: This road starts from Shahapur on the junction of the Bombay-Agra road (mile No. 54/1)

and the Shahapur-Shendrun road, and runs in common with the latter upto Khutghar (mile No. 2/2) after which it runs towards east to enter Ahmadnagar district at 37.4 kilometres.

The road touches Khutghar, Dhasai, Shenva (mile No. 8/4), Veheloli Bk., Kharade and Dolkhamb (mile No. 19/2) in its stretch.

Its length of 30.70 kilometres from Shahapur to Dolkhamb is motorable.

Kashi-Mira-Bhayandar-Uttan road : This road starts from Kashi at mile No. 17/0 of the Bombay-Ahmadabad National Highway, runs north-westwards upto Bhayandar, where it crosses the Western Railway. After Bhayandar it runs in westerly direction upto Uttan. It traverses only Thane taluka for a total length of 15.50 kilometres and touches Kashi, Mira, Bhayandar, Rai-Murdhe, Dongari and Uttan. The entire surface of this road is black-topped and motorable throughout the year.

Kalyan-Malangwadi to Kulaba district border road : This road starts from Kalyan and covers a distance of about sixteen kilometres in the district and proceeds to Panvel. It traverses only Kalyan taluka and touches Kalyan, Ashele, Adivali-Dhokali, Vasarpata, Newali, Kharad, Kushivali and Malangwadi.

The surface of the section of 13.48 kilometres from Kalyan to Malangwadi is motorable.

Vasai fort, road : This road serves as a connecting link between Vasai Road Station and the town and is 3.22 kilometres in length. It is black-topped and motorable.

Vasai Nirmal-Sopara-Bolinj road : This road traverses only Vasai taluka and touches Vasai, Nirmal, Sopara and Rolinj. It is about 15.50 kilometres in length and serves the traffic to Nirmal which is a place of tourist and religious interest.

Makunsar-Edwan-Kore-Dativare road : This road emanates from the Mahim-Safale road and runs in south direction upto Dativare a port on the western coast. It traverses only Palghar taluka for a total length of 15.70 kilometres and touches Makunsar, Agarwadi, Vedhi, Dongare, Edwan, Kore and Dativare. It is water-bound macadam and motorable.

Murbad-Badalapur road : This road traverses Murbad and Ulhasnagar talukas for a total length of 13.19 kilometres and touches Murbad, Phansoli, Kole in Murbad taluka and Sagaon, Chon and Badalapur in Ulhasnagar taluka.

It crosses a *nala* in mile No. 5/4 near Washivali village where there is a slab drain.

Goveli-Titawala Railway Station road : This road joins Goveli at mile No. 9/4 of the Kalyan-Murbad-Vaishakhare State highway with

Titawala railway station *via* Titawala village. The total length of this road is about seven kilometres of which the length of about three kilometres from Titawala to Manda (Titawala railway station) has a black-topped surface and the remaining water-bound macadam.

OTHER MAJOR DISTRICT ROADS IN THANE DISTRICT

Name of the road (1)	Talukas traversed (2)	Length (in km.) (3)	Villages touched by the road (4)
(1) Satpati-Shirgaon to Mahim-Wada-Shirghat State Highway.	Palghar ..	8.05	Satpati and Shirgaon.
(2) Talwade-Vikramgad.	Jawhar ..	17.71	Talwade, Khadaki, Pachade and Vikramgad.
(3) Tokavade-Shiroi-Dolkhamb.	Murbad and Shahapur.	23.39	Hedavali, Khapari and Shiroi.
(4) Bhiwandi-Parol ..	Bhiwandi and Vasai.	25.32	Dahyale, Tembhavali and Dhamne.
(5) Kulgaon-Doneto Kulaba District border.	Kalyan and Ulhasnagar.	15.39	Kharwai, Kasgaon and Vangani.
(6) Shenva-KhutaI ..	Shahapur and Murbad.	18.80	Malegaon, Kinhavali, Kasgaon and Saralgaon.
(7) Umbroli-Dhasai-Mhasa.	Murbad	27.35	Umbroli, Dhasai and Nariwali.
(8) Badalapur-Kulgaon	Ulhasnagar	3.22	Badalapur and Kulgaon.
(9) Boisar-Barhanpur	Palghar	22.53	Betegaon, Man, Mahagaon, Ravate and Nanivali,
(10) Pune link road	Kalyan	3.81	Kalyan.
(11) Udhava-Nagarhaveli	Talasari	1.20	Udhava.
(12) Kapashi-Sawte-Saroli	Dahanu	14.62	Dehane, Pale and Sawte.
(13) Mohone-Nandkar-Talavali.	Kalyan-Bhiwandi	12.85	Mohone, Nandkar and Amne.
(14) Bordi-Borigaon	Talasari	4.00	N. A.

Other District Roads : Other District Roads are of an inferior standard than major district roads and are within the jurisdiction of the Zilla Parishad.

Table No. 2 shows the position of other district roads according to the Road Development Plan of 1961-81, in Thane district.

Village Roads : By March 1977 the Zilla Parishad had constructed a number of village roads measuring about 1,545 kilometres. The Gram Panchayats had also constructed roads measuring about 1,619 kilometres with the people's participation by March 1971. These roads serve the needs of the rural economy, while a majority of them are improved so as to operate State Transport buses.

Municipal Roads: Municipal roads are maintained by the municipal authorities. Most of the municipal roads are metalled and asphalted. Table No. 3 gives the statistics of municipal roads, public transport services, taxis, rickshaws and licensed vehicles in the municipal towns in the district in 1971-72.

ROAD TRAFFIC CENSUS

Thane is a very important district as regards traffic as all the three important National highways starting from Bombay pass through it. Besides, many important State highways pass through this district. Its proximity to the Bombay Metropolis as also the industrial growth of some areas account for the enormous traffic of automobile vehicles in parts of the district. This is evidenced by statistics of traffic census of May 1973 which is given in table No. 6.

MOTOR VEHICLES

The following statement shows the number of motor vehicles in operation in Thane region as on 31st March 1974 :—

No.	Types of Vehicles	Number
1.	Motor cycles, scooters, etc. ...	3,872
2.	Motor cars ...	5,567
3.	Taxi cabs ...	289
4.	Auto rickshaws ...	353
5.	Stage carriages—	
	(i) Diesel ...	118
	(ii) Petrol ...	8
6.	Lorries—	
	(i) Private carriages—	
	(1) Diesel ...	863
	(2) Petrol ...	639
	(ii) Public carriages—	
	(1) Diesel ...	3,464
	(2) Petrol ...	1,344
7.	Ambulances ...	32
8.	School buses ...	38
9.	Private service vehicles ...	204
10.	Trailors ...	421
11.	Tractors ...	421
12.	Others ...	30
Total ...		17,663

Source.—Socio-Economic Review.

BRIDGES

In Thane district there is a considerable number of streams, rivers and creeks which cross the country-side. It is, therefore, necessary that in the interest of smooth and quick road transport, bridges should be constructed at appropriate places.

The following is the account of the major bridges in the district :—

Thane Creek bridge : This is by far the most important bridge on the Bombay-Pune National highway across the Thane creek. The importance of this bridge lies in the fact that it has enabled the reduction of the travel distance from Bombay to Pune as also the Konkan region by about 25 kilometres. The vital road link which it has enabled also saves about an hour's journey to and from Bombay. This has also resulted in reduction in traffic congestion on the Bombay-Thane road. This is a magnificent bridge which exhibits engineering excellence and technical superiority of a high order. Its superiority also lies in the fact that it was constructed from indigenous material.

The construction of this bridge was started in 1963 and completed in 1972. The cost of construction of this bridge alongwith the approach roads amounted to Rs. 436.91 lakhs. It has 39 spans, the distance between two spans varying from 36 to 53.4 metres. It has a well and pile foundation of R.C.C. work. The sub-structure portion consists of piers and the piers from No. 7 to No. 30 are R.C.C. forked inclined. The super-structure is of pre-cast, pre-stressed concrete works and joined with the piers. The total length of this bridge is 1,837 metres. The average height is thirty metres while the height from mid-bed is thirty-three metres. The bridge is 13.4 metres wide. The depth of water in May is 13.7 metres while the navigational clearance is 9.1 metres above the high tide level. Navigation is done through the central three spans. This bridge is located near Washi and Turbhe villages.

In view of the enormous cost of its construction and the benefits which may accrue to the motorists in the form of saving of fuel and travel time, a toll has been levied upon the motorists who use the bridge.

Vasai Creek bridge : This is another important bridge in the district located at 491 kilometres of the Bombay-Ahmadabad National highway near Ghodbunder. It was constructed between 1963 and 1970 and was opened for traffic in 1970. The total length of this bridge is 555.35 metres and the width is 10.36 metres.

The average height of the bridge is 40.5 metres while the height from mid-bed is 25.5 metres. It has eight spans, the distance between two spans varying from 48.46 metres to 114.60 metres. The central spans are designed to facilitate navigation across them. The depth of water in May is nineteen metres while the navigable clearance is 7.32 metres above the higher tide level. The bridge is constructed with a very strong foundation while its sub-structure is of R.C.C. work with solid piers having rectangular sections and R.C.C. open type abutments. The super-structure is of continuous box R.C.C. pre-stressed structure.

The cost of construction of this bridge amounted to Rs. 107.38 lakhs, while the cost of the Bombay side approach road of 178 metres and the Ahmadabad side approach road of 469 metres amounted to Rs. 6.55 lakhs.

Tables No. 5 and 7 show the details of bridges under the jurisdiction of National Highway Division and the Public Works Department in Thane district.

Table No. 8 shows the details of bridges under the jurisdiction of the Thane Zilla Parishad in 1974.

FERRIES

Being a coastal district there are a number of interruptions to traffic due to many criss-crossing rivers, rivulets and creeks. Some of these crossings are still not provided with bridges. But for ferries thoroughfare would have become well-nigh impossible. Though some of the ferries are perennial, many of them ply only in the monsoon, as the swelling waters begin to recede from October.

Almost all the ferries are country-crafts manned by two or three ferry-men. *Hodis* (boats) ply across rivers while *Machwas* (sailing vessels) across creeks. A boat can accommodate four persons, while a *machwa* can carry fifty persons.

In order to facilitate the transshipment of goods and passengers at such places ferries are maintained by the district authorities. In exercise of the powers conferred by the Bombay Ferries and Inland Vessels (Condition of Licences) Act, 1948, the Government vested all the ferries in the then District Local Board which powers have now accrued to the Thane Zilla Parishad. The ferry-owners are allowed to levy tolls at the rates fixed by the Zilla Parishad and have to pay a certain amount to the latter body.

The following statement shows the location of ferries in the district* :—

Taluka	Location of ferry	River or creek	Seasonal or perennial
(1) Thane ..	(1) Bhayandarpada to Nagle ..	Vasai creek ..	Perennial.
	(2) Diwale to Ulwa ..	Belapur creek ..	Perennial.
(2) Dahanu ..	Dahanu village to Badapokharan	Dahanu creek ..	Perennial.
(3) Vada ..	(1) Vilkos village ..	Vaitarna river ..	Seasonal.
	(2) Takwahal to Ambiste ..	Vaitarna river ..	Seasonal.
	(3) Tilase village ..	Vaitarna river ..	Seasonal.
	(4) Shilottar village ..	Gargaon river ..	Seasonal.
(4) Shahapur ..	(1) Bhatsai to Shere ..	Bhatsa river ..	Seasonal.
	(2) Andad to Borsheti ..	Bhatsa river ..	Seasonal.
	(3) Shirgaon-Masawane ..	Kalu river ..	Seasonal.
	(4) Gegaon to Manivali ..	Kalu river ..	Seasonal.
	(5) Bhagdal to Bhaluk ..	Kalu river ..	Seasonal.
	(6) Masawane to Murbad ..	Kalu river ..	Seasonal.
	(7) Madh to Ambarje ..	Kalu river ..	Seasonal.
	(8) Andad to Walsket ..	Bhatsa river ..	Seasonal.
	(9) Bhaluk Kalgaon ..	Kalu river ..	Seasonal.
(5) Jawhar ..	(1) Malwade village ..	Pinjal river ..	Seasonal.
	(2) Kudipada to Brahmangaon ..	Dcherje river ..	Seasonal.
	(3) Potakhal to Dunawe ..	Pinjal river ..	Seasonal.
(6) Kalyan and Ulhasnagar.	(1) Jambhale to Dapiwali ..	Ulhas river ..	Seasonal.
	(2) Apti to Jambhale ..	Ulhas river ..	Seasonal.
	(3) Titwala to Runde ..	Kalu river ..	Seasonal.
	(4) Manivali to Kunde ..	Ulhas river ..	Perennial.
	(5) Manda to Vasundri ..	Kalu river ..	Seasonal.
	(6) Gherse to Vasind ..	Bhatsa river ..	Seasonal.
	(7) Sonavale to Sapad ..	Kalyan creek ..	Perennial.
	(8) Thakurli to Pimpalas ..	Kalyan creek ..	Perennial.
	(9) Diva to Alimghar ..	Diva creek ..	Perennial.
	(10) Vasundri to Kirvali ..	Bhatsa river ..	Seasonal.
	(11) Sangode to Mande ..	Kalu river ..	Perennial.
	(12) Titwala to Gundavali ..	Kalu river ..	Seasonal.
(7) Palghar ..	(1) Kelwa to Danda ..	Danda creek ..	Perennial.
	(2) Satpati to Murbe ..	Satpati creek ..	Perennial.
	(3) Galsar to Dativare ..	Satpati creek ..	Perennial.
	(4) Tandulwadi to Pargaon ..	Pargaon creek ..	Perennial.
	(5) Tembhi to Gaskopri ..	Galsar creek ..	Seasonal.

*Information for Vasai Taluka is not available.

Taluka	Location of ferry	River or creek	Seasonal or Perennial
	(6) Galsar to Dongri	.. Galsar creek	.. Perennial.
	(7) Vadshiv to Dole	.. Vaitarna river	.. Seasonal.
	(8) Satpati to Kharekuran	.. Satpati river	.. Perennial.
	(9) Dahisar to Khamloli	.. Surya river	.. Perennial.
	(10) Murbe to Kharekuran	.. Murbe creek	.. Perennial.
	(11) Vadshiv to Navghar	.. Vaitarna river	.. Seasonal.
	(12) Vadshiv to Khandrebhure	.. Vaitarna river	.. Seasonal.
(8) Bhiwandi	.. (1) Koshimbe to Vadavali	.. Bhatsa river	.. Seasonal.
	(2) Kevani to Kharbao	.. Bhiwandi creek	.. Perennial.
	(3) Kharbao to Vadunavghar	.. Bhiwandi creek	.. Perennial.
	(4) Waghivli to Kalyan	.. Kalyan creek	.. Perennial.
	(5) Nandkar to Atali	.. Nandkar river	.. Perennial.
	(6) Alimghar to Dive	.. Thane creek	.. Perennial.
	(7) Chirpada to Vangurli	.. Bhatsa river	.. Seasonal.
	(8) Kalamboli to Ju	.. Bhatsa river	.. Seasonal.
	(9) Khadavali to Atali	.. Nandkar river	.. Perennial.
	(10) Bapgaon to Kalyan	.. Gandhari river	.. Perennial.
	(11) Chaudharpada to Umbarade	Chaudharpada river.	Perennial.

WATER TRANSPORT

Geographically forming a part of North Konkan, Thane district has a coast-line of about seventy miles or 113.4 kilometres along the Arabian sea. Though there is no major port on this coast-line there are many minor ports such as Dahanu, Sawate, Tarapur, Kelwa-Mahim, Manor, Datiware, Vasai, Bhayandar, Bhiwandi, Thane, Kalyan, Uttan, Arnala, Satpati and Navapur Agashi. Most of these minor ports lack berthing facilities and they admit only of small tonnages. These ports are however well connected by roads and railways. The tonnage of cargo handled and the chief imports and exports from some of the main ports in the district during the year 1959-60 are given in table No. 9.

The following is the description of some of the ports which deserve a mention :-

Thane port: Thane port is situated in Thane creek at 19°11'36" north latitude and 72°59'00" east longitude.

There are four jetties at this port, of which only three are used for unloading of goods. Only salt is imported at this port. In 1971-72 about 11,093 metric tonnes of salt was imported at this port.

The number of passengers embarked and disembarked during 1970-71 and 1971-72 is given below :—

Year	Passengers		Total of (2) and (3)
	Embarked	Disembarked	
(1)	(2)	(3)	(4)
1970-71 ..	32,400	34,700	67,100
1971-72 ..	50,300	54,600	1,04,900

The revenue earned by Government by way of port dues, ground rent and storing charges amounted to Rs. 4,656-30, Rs. 4,441-51 and Rs. 4,918-72 during the years 1969-70, 1970-71 and 1971-72 respectively.

The study group on transport and communications including inland waterways appointed by the then Bombay Government opined in its report (1959) that if the water transport facility is made available north to the Bombay Harbour, i.e., in the Thane creek by joining the Ulhas river and the Vasai creek, industries can be located on the water-banks. By so locating the industries the pressure on roads can be relieved and new areas for development made available to industries. The study group also recommended a well-studied plan earmarking a sum of rupees one crore for the same.*

Kalyan port: This port is situated on the Ulhas river at 19°14'36" north latitude and 73°07'24" east longitude at a distance of about 35 kilometres from Bombay. The creek is navigable throughout the year and sailing vessels and sand trollers can anchor in the creek. There is a very old jetty which is not usable at present. The following statement shows the number of passengers embarked and disembarked at this port during 1969-70, 1970-71 and 1971-72 :—

Year	Passengers		Total of (2) and (3)
	Embarked	Disembarked	
(1)	(2)	(3)	(4)
1969-70 ..	78,100	72,100	1,50,200
1970-71 ..	52,700	45,000	97,700
1971-72 ..	45,800	38,800	84,600

* Report of the Study Group on Transport and Communications, Government of Bombay, 1959.

The chief commodities imported at this port are chemical salt, dry fish, etc. while the chief commodities exported are bricks and sand. During 1971-72 about 1,212 metric tonnes of dry fish was imported and the general cargo of seven metric tonnes was exported from this port. The following statement shows the revenue earned by Government in 1969-70, 1970-71 and 1971-72 from this port :—

Year	Classification of revenue			Total revenue earned
	Port dues	Storing charges	Miscellaneous charges	
(1)	(2)	(3)	(4)	(5)
	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1969-70 ..	4,881.07	2,639.70	175.00	7,695.77
1970-71 ..	10,191.60	841.50	185.00	11,218.10
1971-72 ..	12,982.66	1,729.50	385.00	15,097.16

Bhiwandi port : This is an inland port, situated on the Ulhas river at 19°15'04" north latitude and 73°0'22" east longitude at a distance of ten kilometres from Kalyan. The creek is navigable at high tide only and therefore only small vessels can sail. The total number of passengers embarked and disembarked during 1969-70, 1970-71 and 1971-72 amounted to 4,11,000, 34,800 and 61,300 respectively.

Uttan port : This port is situated at 19°18' north latitude and 72°49' east longitude. It is mainly a fishing port and is well connected by road with Bhayandar. There is no jetty or wharf and it is not used for passenger traffic.

Vasai port : This was an important port in the past, and a venue of the fierce battle fought by Chimaji Appa with the Portuguese. After the decline of its historic importance, it is now regarded as a very good port for fishing activities. It is situated at 19°20' north latitude and 72°49' east longitude. This port is seven kilometres away from the Vasai Road railway station. The well-known Vasai fort is situated in the vicinity of the port. There is a jetty at this port for loading and unloading. Fishing and sailing vessels anchor near the jetty. The chief commodities exported from this port are sand, fire-wood and fish while imports consist of building material, wood and timber. During 1971-72 about 149 metric tonnes of sand, bricks and building material, 36 tonnes of fire-wood and timber, 96 tonnes of fish and fourteen tonnes of other cargo was exported, while building material amounting to 558 tonnes and wood and timber of two tonnes was imported at this port.

The following statement shows the revenue earned from the port in 1969-70, 1970-71 and 1971-72 :—

Year (1)	Classification of revenue		
	Port dues (2)	Storing charges (3)	Other (4)
	Rs. P.	Rs. P.	Rs. P.
1969-70 ..	14,380·07	479·50	1,231·00
1970-71 ..	9,834·57	225·50	323·60
1971-72 ..	7,959·33	710·00	2,545·00

The number of passengers embarked and disembarked during 1969-70 ; 1970-71 and 1971-72 amounted to 37,700 ; 10,200 and 12,600 respectively.

Arnala port : The port is situated at the mouth of the Vaitarna river 19°27' north latitude and 72°44' east longitude. The famous Arnala sea fort is in the vicinity of this port. Though there is no jetty or wharf, the port is navigable throughout the year. Mainly sand is exported from this port, the quantity of which was recorded at 1,601 tonnes in 1971-72. In the same year 367 tonnes of building material was unloaded. This port yielded a petty revenue of Rs. 3,806·71 in 1969-70, Rs. 3,290·40 in 1970-71 and Rs. 3,245 in 1971-72. The number of passengers embarked and disembarked during 1969-70, 1970-71 and 1971-72 was 54,100, 35,000 and 33,400 respectively.

Dativare port : This is an auxiliary port of the Arnala port situated on the other bank of the Vaitarna river in Palghar taluka about two kilometres north of Arnala. Only sand and building material are exported from the port. Passenger traffic at this port is negligible. The revenue earned from port dues amounted to Rs. 1,773·70 in 1969-70, Rs. 1,366·00 in 1970-71 and Rs. 1,485·50 in 1971-72.

Kelwa-Mahim port : Mahim port is situated 19°30'00" north latitude and 72°45'15" east longitude. The Mahim fort is in the vicinity of the port. About 135 tonnes of building material was disembarked at this port in 1971-72. The number of passengers embarked and disembarked was 1,16,600 in 1969-70, 78,800 in 1970-71 and 74,900 in 1971-72.

Satpati port : This port is one of the most important fishing centres in the district situated on the Satpati creek at 19°42'30" north latitude and 72°42'00" east longitude. Though there is no jetty or wharf, sailing vessels and big-fishing trollers can anchor near the port.

Besides fish, roofing tiles and dry fish are also disembarked at Satpati where ferry services operate frequently.

The following statement shows the statistics of passengers at this port in 1969-70, 1970-71 and 1971-72 :—

Year (1)	Passengers		Total of (2) and (3) (4)
	Embarked (2)	Disembarked (3)	
1969-70 ..	78,700	64,900	1,43,600
1970-71 ..	1,00,500	1,04,100	2,04,600
1971-72 ..	1,08,100	1,16,200	2,24,300

The revenue earned in 1971-72 amounted to Rs. 799.

Navapur Agashi : This inland port is situated in the Satpati creek, a kilometre west of Boisar at 19°46' north latitude and 72°41' east longitude. The creek is navigable at high tide only. This port is used for passenger traffic only. The following statement shows the passenger traffic at the port during 1969-70, 1970-71 and 1971-72 :—

Year (1)	Passengers		Total of (2) and (3) (4)
	Embarked (2)	Disembarked (3)	
1969-70 ..	78,900	64,000	1,42,900
1970-71 ..	90,100	94,000	1,84,100
1971-72 ..	1,08,100	1,16,200	2,24,300

A petty sum of only Rs. 55 accrued by way of revenue from this port in 1971-72.

Tarapur port : This port is situated in the Tarapur creek, close to the sea-shore at 19°51'00" north latitude and 72°40'40" east longitude. The Tarapur fort also known as the Chimaji Appa fort, is situated in the vicinity of the port. This port is used only for paltry goods traffic consisting of building material while the revenue earned amounted to Rs. 156 during 1971-72.

Dahanu port : Though a minor port, it is endowed with a good natural situation favourable for navigation. It is situated at 19°59' north latitude and 72°43' east longitude, four kilometres west of Dahanu Road railway station. The open creek provides safe anchorage for sailing and fishing vessels. The port is navigable throughout the year and fit for passenger traffic between Dahanu port and Dhakti Dahanu throughout the year. The chief commodities exported are wood, timber and building material. In 1971-72 about 16,496 metric

tonnes of wood and timber and 171 tonnes of building material was exported from Dahanu.

The imports in the same year consisted of 334 tonnes of building material and 166 tonnes of general cargo.

STATE TRANSPORT

Passenger transport business was nationalised by the State Government and the services under the nationalised set-up were started departmentally in June 1948. Subsequently a statutory autonomous body, viz., Bombay State Road Transport Corporation was established in December 1949 under the provisions of the Bombay Road Transport Corporation Act, 1948. The Corporation was re-named as 'Maharashtra State Road Transport Corporation' on 1st July 1961 which also incorporated the merger of the Provincial Transport Services, Vidarbha Region as also the Marathwada Road Transport Undertaking.

The entire passenger transport business was brought under the fold of the Corporation at the beginning of the First Five-Year Plan. This district is included under the jurisdiction of Thane State Transport Division. This division was started in April 1950 with initial headquarters at Bombay, which was shifted to Thane in February 1957.

The bus services in Thane district were started with twelve vehicles on six routes having a total route length of 89 kilometres on 1st December 1950, from Bhiwandi depot. The area of operation of the services was expanded rapidly in the subsequent period.

There were eight depots in Thane division. Out of eight depots, seven depots were in Thane district in the year 1972. The following statement shows the depots and number of vehicles attached to each depot as on 31st March 1970 :—

Depots	Buses
Bombay ...	65 + 3 luxury
Bhiwandi ...	53
Kalyan ...	92
Thane ...	102
Vasai ...	54
Palghar ...	42
Jawhar ...	33
Arnala ...	24
	<hr/> 465 + 3 luxury <hr/>

There were 1,012 drivers and 882 conductors in Thane division as on 31st March 1970.

Table No. 10 shows the operational statistics of State Transport in the district as on 31st March 1974.

The statement given below indicates the various routes in operation, number of trips per day and the average number of passengers travelled per day during 1972 :—

Depot	Route	Route distance in kilometres	No. of trips per day	No. of persons travelled per day
(1)	(2)	(3)	(4)	(5)
Bhiwandi	(1) Bhiwandi-Thane	18.7	77	10,010
	(2) Bhiwandi-Parel	25.5	2	190
	(3) Bhiwandi-Angaon	3.0	4	125
	(4) Bhiwandi-Khambale	22.9	5	432
	(5) Bhiwandi-Dugad	19.3	4	145
	(6) Bhiwandi-Manivali	12.3	1	42
	(7) Bhiwandi-Kunde	26.9	2	132
	(8) Bhiwandi-Ganeshpuri	29.0	4	264
	(9) Vajreshwari-Bhiwandi	26.9	1	34
	(10) Ganeshpuri-Vada	36.6	1	47
	(11) Ganeshpuri-Thane	47.9	1	73
	(12) Ganeshpuri-Vajreshwari	4.0	1	25
	(13) Vajreshwari-Vasai station	31.5	1	34
	(14) Vasai station-Bhiwandi	57.3	1	83
	(15) Bhiwandi-Borande	39.1	2	129
	(16) Bhiwandi-Vada	42.1	7	519
	(17) Vada-Palghar	54.6	1	101
	(18) Vada-Vikramgad	22.3	1	44
	(19) Vada-Thane	60.7	3	286
	(20) Talasari-Thane	158.6	1	72
	(21) Dahanu-Thane	145.8	1	66
	(22) Bhiwandi-Borivali	14.3	10	631
	(23) Bhiwandi-Padghe	11.2	5	238
	(24) Bhiwandi-Nandkar	30.5	2	14
	(25) Bhiwandi-Shahapur	33.4	4	277
	(26) Shahapur-Asangaon	2.6	9	102
	(27) Shahapur-Shenawe	12.9	1	72
	(28) Asangaon-Birwadi	17.9	1	62
	(29) Kinhavali-Asangaon	27.5	5	467
	(30) Temburli-Asangaon	40.5	1	29
	(31) Bhiwandi-Khardi	52.3	4	172
	(32) Khardi-Shahapur	18.7	1	43
	(33) Khardi-Vaitarana	16.9	3	192

(1)	(2)	(3)	(4)	(5)
	(34) Shahapur-Atgaon ..	5.9	2	216
	(35) Shahapur-Bhiwandi ..	15.7	1	38
	(36) Bhiwandi-Anjur ..	11.2	4	281
	(37) Thane-Ratnagiri ..	352.7	1	94
	(38) Thane-Vasai station ..	78.2	1	46
	(39) Bhiwandi-Bombay ..	52.0	1	108
	(40) Vada-Nasik ..	186.6	1	59
	(41) Bhiwandi-Kalyan ..	11.2	32	546
	(42) Atgaon-Tansa ..	11.2	3	190
	(43) Thane-Borivali ..	32.9	1	54
	(44) Asangaon-Lenad ..	13.5	3	214
	(45) Bhiwandi-Pune ..	169.1	1	23
	(46) Dolkhamb-Shahapur ..	39.1	1	9
	(47) Asangaon-Sakurli ..	45.0	2	163
	(48) Bhiwandi-Kawad ..	6.0	1	20
Kalyan ..	(1) Kalyan-Murbad ..	30.4	8	584
	(2) Shahapur-Murbad ..	52.4	1	31
	(3) Shahapur-Dolkhamb ..	30.4	1	67
	(4) Kalyan-Kinhavali ..	51.5	3	299
	(5) Kalyan-Dhasai ..	54.9	3	162
	(6) Murbad-Dhasai ..	28.3	2	131
	(7) Kalyan-Waishakhare ..	60.8	2	91
	(8) Kalyan-Shiroshi ..	66.4	3	276
	(9) Kalyan-Panvel ..	41.1	1	45
	(10) Borapada-Kalyan ..	31.1	2	186
	(11) Badlapur station-Badlapur ..	15.5	1	39
	(12) Kalyan-Jambhali ..	14.0	1	52
	(13) Kalyan-Shil phata ..	21.0	2	146
	(14) Kalyan-Katai ..	9.7	7	453
	(15) Kalyan-Khadki ..	11.3	1	101
	(16) Kalyan-Ganeshpuri ..	52.4	1	95
	(17) Murbad-Majgaon ..	16.7	3	151
	(18) Murbad-Mhasa ..	12.9	5	452
	(19) Bhiwandi-Thane ..	18.7	1	58
	(20) Kalyan-Bhiwandi ..	11.5	10	673
	(21) Kalyan-Hajimalang ..	15.5	21	177
	(22) Murbad-Borsheti ..	24.0	1	35
	(23) Kalyan-Mamnoli ..	49.8	1	31
	(24) Murbad-Saralgaon ..	17.2	1	34
	(25) Waishakhare-Murbad ..	35.7	1	56
	(26) Asangaon-Shenawe ..	15.1	1	43
	(27) Shenawe-Shahapur ..	12.9	1	34
	(28) Murbad-Asangaon ..	47.7	1	47

(1)	(2)	(3)	(4)	(5)
	(29) Kalyan-Kharad ..	11.5	9	404
	(30) Murbad-Kalambhe ..	26.2	1	37
	(31) Kalyan-Camp Nos. 1, 2, 3.	4.5	115	12,242
	(32) Kalyan-Camp No. 5 ..	8.0	85	425
	(33) Kalyan-Camp No. 1 via Murbad Road.	4.0	30	3,194
	(34) Kalyan-Camp No. 1 ..	6.4	4	425
	(35) Camp No. 5-Camp No. 1	6.6	120	12,775
	(36) Camp No. 4-Vithalwadi ..	5.0	13	1,384
	(37) Camp No. 1-Vithalwadi ..	1.2	17	1,810
	(38) Kalyan station-Camp No. 3 via C Block.	5.8	12	1,278
	(39) Camp No. 5-Ambarnath ..	2.4	20	2,130
	(40) Camp No. 1-Ambarnath ..	7.8	1	104
	(41) Kalyan station-CRD ..	4.6	21	2,236
	(42) Kalyan-TAK ..	13.7	5	534
	(43) Kalyan-WIMCO ..	10.9	27	2,874
	(44) Kalyan station-Camp No. 3	3.6	1	104
	(45) Camp No. 3-WIMCO ..	7.3	7	746
	(46) Ambarnath-TAK ..	4.3	3	320
	(47) CRM-WIMCO ..	10.7	5	532
Thane	.. (1) Thane-Belapur ..	26.2	30	2,638
	(2) Thane-Khed ..	220.5	1	83
	(3) Thane-Nagle ..	15.3	1	52
	(4) Thane-Mental Hospital ..	2.7	2	56
	(5) Thane-Bhayandar ..	30.4	4	268
	(6) Thane-Borivali ..	29.8	12	1,228
	(7) Borivali-Kashi Mira ..	6.1	1	86
	(8) Thane-Kolshet ..	9.1	25	2,082
	(9) Bhayandar-Uttan ..	10.1	31	2,376
	(10) Bhayandar-Morve ..	5.1	13	1,178
	(11) Thane-Khairane ..	15.9	4	273
	(12) Thane-Ghansoli ..	12.7	5	228
	(13) Thane-Turbhe ..	19.1	5	288
	(14) Thane-Ovale ..	104	3	127
	(15) Thane-Ghodbundar ..	20.7	1	30
	(16) Borivali-Ghodbundar ..	0.9	3	208
	(17) Thane-Bhiwandi ..	18.7	12	1,560
	(18) Thane-Purne ..	13.2	12	1,420
	(19) Thane-Balkum ..	6.4	25	2,332
	(20) Thane-Town Hall ..	1.4	48	5,112
	(21) Thane-Civil Hospital ..	2.4	43	4,578
	(22) Thane-Kalwa ..	3.1	21	2,237

(1)	(2)	(3)	(4)	(5)
	(23) Thane-Petrol Pump ..	1.9	48	5,113
	(24) Thane-Pokharan No. 2. ..	6.3	16	1,704
	(25) Thane-Wagle Estate ..	3.8	47	5,005
	(26) Thane-Pokharan No. 1 ..	4.4	62	1,704
Palghar	.. (1) Palghar-Thane ..	115.0	1	360
	(2) Palghar-Vada ..	53.7	1	420
	(3) Vada-Parali ..	15.1	1	110
	(4) Palghar-Talwade ..	49.1	2	389
	(5) Palghar-Bandhan ..	44.6	2	287
	(6) Palghar-Manor ..	18.1	5	810
	(7) Palghar-Varor ..	28.9	5	810
	(8) Palghar-Boisar ..	12.6	4	518
	(9) Palghar-Bahadoli ..	16.3	3	287
	(10) Palghar-Kelwa ..	12.3	7	265
	(11) Murbe-Palghar ..	17.6	1	224
	(12) Palghar-Kelwa Road ..	21.1	1	480
	(13) Palghar-Mahim ..	9.7	9	117
	(14) Palghar-Satpati ..	10.1	18	2,004
	(15) Palghar-Kamare ..	6.6	2	95
	(16) Palghar-Chinchani ..	25.1	1	41
	(17) Palghar-Kore ..	15.9	1	45
	(18) Kore-Saphale ..	15.9	7	628
	(19) Saphale-Tandulwadi ..	6.3	3	207
	(20) Saphale-Dativare ..	20.4	4	152
	(21) Saphale-Chetale ..	8.7	2	200
	(22) Saphale-Vadhi ..	9.5	6	116
	(23) Boisar-Murbe ..	17.6	5	368
	(24) Palghar-Dahanu ..	37.7	1	204
	(25) Palghar-Anukendra ..	25.8	2	116
	(26) Palghar-Shirgaon ..	6.6	6	383
	(27) Boisar-Varor ..	16.3	9	772
	(28) Boisar-Dahanu ..	25.0	3	282
	(29) Boisar-Tarapur ..	11.1	5	98
	(30) Boisar-Chinchani ..	13.8	3	200
	(31) Boisar-Mahagaon ..	12.6	7	647
	(32) Tarapur-Vangaon ..	11.9	6	618
	(33) Tarapur-Dahanu ..	14.9	3	168
	(34) Varor-Vangaon ..	13.3	3	247
	(35) Dahanu-Vangaon ..	32.0	1	13
	(36) Tarapur-Varor ..	5.0	2	40
	(37) Saphale-Usarni ..	13.2	5	247
	(38) Saphale-Jalsar ..	7.7	6	302
	(39) Palghar-Safala ..	7.8	1	16

(1)	(2)	(3)	(4)	(5)
	(40) Saphale-Makunsar ..	6.3	1	41
	(41) Kelwa-Kelwa Road ..	7.8	1	39
	(42) Chinchani-Jobsite ..	10.5	4	139
	(43) Tarapur-Jobsite ..	9.5	3	27
	(44) Boisar-Colony ..	3.0	6	36
	(45) Colony-Jobsite ..	9.4	7	41
	(46) Jobsite-Boisar ..	12.4	3	37
	(47) Boisar-Shivaji Chawk ..	13.8	1	76
Jawhar	.. (1) Jawhar-Mokhada ..	21.6	2	36
	(2) Jawhar-Nasik <i>via</i> Trimbak ..	106.3	1	254
	(3) Jawhar-Dahanu ..	61.4	7	462
	(4) Dahanu-Dahanu Road ..	4.9	16	842
	(5) Dahanu Fort-Ganjad ..	14.0	1	46
	(6) Dahanu-Sawte ..	4.0	1	48
	(7) Dahanu-Chikhale ..	10.7	4	651
	(8) Bordi-Dahanu ..	16.1	7	912
	(9) Dahanu-Sawade ..	40.8	1	93
	(10) Dahanu-Bapgaon ..	34.1	4	374
	(11) Jawhar-Talasari ..	24.6	4	304
	(12) Jawhar-Vada ..	49.5	1	174
	(13) Vada-Khodale ..	49.5	1	138
	(14) Vada-Parali ..	16.0	1	191
	(15) Jawhar-Tarapur ..	71.2	1	85
	(16) Dahanu Fort-Tarapur ..	26.0	1	107
	(17) Bordi-Gholwad ..	14.0	8	698
	(18) Dahanu Fort-Ashagad ..	4.8	1	72
	(19) Dahanu-Vikramgad ..	49.3	1	62
	(20) Dahanu-Udhwa ..	58.1	3	540
	(21) Dahanu-Mahalaxmi ..	27.8	1	125
	(22) Jawhar-Nasik <i>via</i> Igatpuri ..	120.5	1	275
	(23) Jawhar-Kasara ..	73.0	2	460
	(24) Kasara-Washale ..	9.6	1	209
	(25) Jawhar-Thane ..	110.6	2	384
	(26) Thane-Kolshet ..	7.0	1	49
	(27) Jawhar-Bhiwandi ..	91.8	1	330
	(28) Dahanu-Talasari ..	48.7	1	270
	(29) Jawhar-Winwa ..	14.6	2	120
	(30) Jawhar-Vikramgad ..	27.0	1	137
	(31) Jawhar-Vevaji ..	89.2	1	118
	(32) Dahanu-Kosbad ..	9.1	1	84
Vasai	.. (1) Vasai station-Vajreshwari ..	31.5	5	750
	(2) Ganeshpuri-Thane ..	7.9	1	81
	(3) Thane-Vasai station ..	78.1	1	162

(1)	(2)	(3)	(4)	(5)
(4)	Vasai station-Ambadi ..	39.9	2	260
(5)	Vasai station-Borande ..	55.9	1	81
(6)	Vasai station-Vada ..	67.9	1	101
(7)	Vasai station-Sange ..	33.4	3	390
(8)	Vasai station-Shirvali ..	25.8	1	104
(9)	Vasai station-Kaman ..	13.6	10	647
(10)	Vasai station-Nirmal ..	19.2	6	644
(11)	Vasai station-Bhuigaon ..	9.2	1	64
(12)	Vasai-Nirmal ..	8.2	12	676
(13)	Vasai-Nala ..	10.9	6	662
(14)	Gas-Vasai ..	13.1	1	87
(15)	Nirmal-Nala Sopara ..	5.6	35	4,564
(16)	Nala Sopara station-Sopara ..	5.8	21	2,318
(17)	Nala Sopara station-Nala ..	2.4	17	1,670
(18)	Vasai-Nirmal via Girij ..	8.2	18	1,980
(19)	Vasai station-Pali ..	7.0	27	2,973
(20)	Vasai-Tamtalav ..	5.0	16	1,426
(21)	Vasai station-Vasai ..	5.6	112	9,629
(22)	Pelhar-Nala Sopara ..	8.2	2	165
(23)	Vasai station-Khanivade ..	14.5	3	275
(24)	Sasuna vghar Vasai station ..	18.1	2	162
(25)	Nala Sopara station-Bhiwandi ..	41.6	1	113
(26)	Pelhar-Vasai station ..	9.4	1	117
(27)	Vada-Kudus ..	13.7	1	120
(28)	Vasai-Pali ..	4.3	1	118
(29)	Vasai station-Holi ..	16.0	25	2,801
(30)	Holi-Pali ..	5.6	10	136
(31)	Vasai station-Deotalav ..	4.2	9	1,026
(32)	Vasai station-Bhabala ..	2.5	1	53
(33)	Vasai-Vasai station ..	7.4	22	2,678
(34)	Vasai station-Girij ..	6.3	30	3,738
(35)	Nala Sopara-Wagholi ..	3.9	2	107
(36)	Vasai station-Rangaon ..	6.6	23	2,641
(37)	Bhuigaon-Nirmal ..	1.2	1	103
(38)	Bhuigaon-Nala Sopara ..	5.3	2	208
(39)	Vasai station-Bangli ..	4.2	4	430
(40)	Vasai station-Umele ..	5.1	1	55
(41)	Vasai-Girij ..	4.3	7	945
(42)	Umele-Nala Sopara ..	3.3	5	550
(43)	Umele-Rangaon ..	4.7	5	560
(44)	Nala Sopara-Kalamb ..	6.2	15	1,424
(45)	Bhiwandi-Parol ..	41.5	1	93

(1)	(2)	(3)	(4)	(5)
Arnala	.. (1) Virar-Vajreshwari	.. 26.9	3	390
	(2) Vajreshwari-Ambadi	.. 9.2	1	95
	(3) Virar-Shivansai	.. 12.9	3	389
	(4) Virar-Thane ..	.. 74.6	1	420
	(5) Arnala-Vasai	.. 19.3	4	517
	(6) Virar-Tilher ..	.. 21.3	1	71
	(7) Virar-Shirvali	.. 21.2	1	81
	(8) Virar-Agashi	.. 6.0	33	4,167
	(9) Virar-Arnala	.. 9.2	22	2,285
	(10) Virar-Vatar ..	.. 6.0	33	4,101
	(11) Virar-Tal ..	.. 18.3	2	165
	(12) Virar-Khanivade	.. 13.8	2	166
	(13) Virar-Shivansai	.. 12.9	2	162

Amenities for passengers: Permanent bus-stations have been constructed at Khardi, Kalyan and Thane. Temporary bus-stations have been provided at Vasai, Bhiwandi, Ganeshpuri, Hajimalang, Kalyan Camp, Murbad, Vajreshwari and Vada. In addition, pick-up stands have been provided at bigger villages.

REST HOUSES

There are seventeen rest-houses, ten forest bungalows and three Z. P. dak bungalows in the district. These rest-houses are mainly intended for camping of Government officers on official tours though tourists can occasionally be accommodated in them. They are usually well-equipped with furniture, crockery, etc. At some of these bungalows cooks are also available.

Besides there were 48 *dharmashalas* or *ashrams* in the district in 1971.

The following is the list of rest-houses in Thane district :—

Serial No.	Name of rest house	Taluka	Number of suites
(1)	(2)	(3)	(4)
I. Under the jurisdiction of Public Works and Housing Department :—			
1.	Thane (known as the travellers bungalow).	Thane	2
2.	Kalyan	Kalyan	2
3.	Ambarnath	Ulhasnagar	2
4.	Bhiwandi	Bhiwandi	2

(1)	(2)	(3)	(4)
5. Shahapur	...	Shahapur	2
6. Ghodbunder	...	Thane	1
7. Vada	...	Vada	2
8. Palghar	...	Palghar	3
9. Manor	...	Palghar	2
10. Khodola	...	Mokhada	2
11. Mokhada	...	Mokhada	4
12. Jawhar	...	Jawhar	4
13. Vasai	...	Vasai	2
14. Dahanu	...	Dahanu	4
15. Talasari	...	Talasari	2
16. Shirsad	...	Vasai	2
17. Kasa	...	Dahanu	2

II. Under the jurisdiction of Forest Department :—

(1) Padghe	...	Bhiwandi	2
(2) Ambadi	...	Bhiwandi	2
(3) Kanchad	...	Vada	2
(4) Ganjad	...	Dahanu	2
(5) Saiwan	...	Dahanu	2
(6) Sawa	...	Jawhar	2
(7) Suryamal	...	Shahapur	2
(8) Thalghat	...	Shahapur	2
(9) Parali	...	Vada	2

III. Under the jurisdiction of Zilla Parishad—

(1) Murbad	...	Murbad
(2) Shenawe	...	Shahapur
(3) Vikramgad	...	Jawhar

IV. Under the jurisdiction of Thane Municipality—

(1) Pokharan	...	Thane
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POST OFFICES

During British period Thane district was included in the Pune Postal Division, and there were as many as twenty-nine post offices in the old Thane district in 1884. Besides there was a Government telegraphic office located at Thane. The Thane Postal Division was formed in 1955 with its jurisdiction over entire Thane district and the

northern part of Kolaba district. In 1971, however, two separate postal divisions were established, one each for Thane and Kolaba districts. Accordingly the jurisdiction of Thane Postal Division is now restricted to the Thane district. There are two head post offices in Thane Division, one at Thane and another at Palghar.

The following statement gives the taluka-wise distribution of post-offices in the district in 1972:—

Taluka			Sub-offices	Branch sub-offices	Branch post-offices
(1)			(2)	(3)	(4)
(1) Vasai	..	..	7	2	22
(2) Bhiwandi	..	..	5	..	11
(3) Dahanu	..	..	7	..	26
(4) Jawhar	..	..	2	..	4
(5) Kalyan	..	..	10	..	7
(6) Mokhada	..	..	1	..	7
(7) Murbad	..	..	2	..	7
(8) Palghar	..	..	8	..	24
(9) Talasari	..	..	1	..	7
(10) Thane	..	..	13	..	16
(11) Shahapur	..	..	4	..	27
(12) Ulhasnagar	..	..	10	..	5
(13) Vada	..	..	1	..	13
Total			71	2	176

Table No. 11 shows the progress in postal, telegraph and telephone facilities in Thane district since 1950-51.

The total number of radio licences issued and renewed at Thane Head Office amounted to 92,594 in 1972. As many as 316 television licences were issued in 1972 from Thane Head Post Office. The radio licences issued and renewed at Palghar Head Office numbered 15,218 in the same year.

RURAL BROADCASTING

Rural Broadcasting Scheme: Community radio is the only medium easily available for efficient dissemination of news and information to the masses located in remote corners of the State. Through this powerful medium rural masses, constituting the backbone of the nation, are kept informed of the latest and authentic news, useful agricultural information like improved practices in use of fertilisers and insecticides, seeds, etc., for increasing food production

as also essential information on family planning, market rates, weather forecast, etc.

The departmentally-manufactured community radio sets (for outdoor listening) are installed and maintained on a contributory basis, the Gram Panchayats or the public bodies, etc., paying the initial installation contribution of Rs. 175 for dry battery operated radio set, Rs. 150 for electric mains operated set and annual maintenance contribution of Rs. 100 per set for either dry battery or mains operated sets.

The Thane district had 1,112 community listening radio sets installed as on 30th September 1973.

Group Listening Scheme : This is a new scheme introduced from the year 1972-73. Under this scheme, special type of departmentally-manufactured transistorised radio sets are installed and maintained on a contributory basis for indoor listening by smaller groups such as school children. The groups, viz., school children etc ; are benefited from the special programmes broadcast for the purpose by the All-India Radio. The group has to pay Rs. 150 as initial contribution for installation and Rs. 50 annually towards maintenance. Nine such sets were installed in the talukas against a target of fifty sets for the year 1973-74.

Community Television Scheme : As the most modern media of mass communication, the Community Televiewing Scheme is expected to play a vital role. With its rural programmes coupled with visuals the TV. is capable of tremendous impact on the masses in regard to the information that would be specially telecast for rural areas on agriculture, health, sanitation, family planning and general education, etc. The Bombay TV Centre came on the air on 2nd October 1972, and ten Community TV sets have already been installed in the following villages in Thane District :—

(1) Turbhe, (2) Shahad, (3) Angaon, (4) Kalher, (5) Kon, (6) Rayate, (7) Virar, (8) Ganeshpuri, (9) Kaman and (10) Agashi.

About forty additional TV sets were envisaged to be installed in Thane district by the end of the Fourth Five-Year Plan. It is also expected that additional 200 TV sets would be installed in Thane District during the Fifth Five-Year Plan.

Cine Projector Repairs Scheme : A large variety of audio-visual equipment is in use at the Zilla Parishad, Panchayat Samitis and other public bodies like municipalities for the welfare of the public in general. The maintenance of this equipment at district places poses a problem. The Government has recently sanctioned a scheme for the repair of cine projector equipment on a contributory basis.

Under this scheme 16 mm. sound cine projectors, tape-recorders, and allied equipments belonging to the Zilla Parishad, and public bodies are undertaken for repairs at the Bombay Divisional office on a contributory basis. A number of Panchayat Samitis and other Government departments are taking advantage of this scheme.

Radio Rural Forums Scheme: Under this scheme radio listening-cum-discussion forums are set up around selected radio receiving centres where a group of villagers discuss the various points, brought out in the radio programmes. The results of the discussions, problems and difficulties, etc., are communicated to the broadcasting station. This provides two-way channel of information and well-needed feed-back for the rural radio programmes. This scheme has definitely contributed substantially to the progress of the villages.

In Thane district fifteen such Radio Rural Forums were established upto September 1973.

Table No. 12 shows the rural broadcasting statistics in Thane district as on 31st March 1975.

TABLES

TABLE NO. 1—ROAD-LENGTH ACCORDING TO CATEGORY AND SURFACE CLASSIFICATION IN THANE DISTRICT AS ON 31ST MARCH 1977

Category	Length under the jurisdiction of			Grand Total [Items (2) + (3) + (4)]
	Public works Department	Zilla Parishad	Municipalities	
(1)	(2)	(3)	(4)	(5)
I. Category—				
(1) National highways ..	234.00	....	....	234.00
(2) State highways ..	450.42	....	....	450.42
(3) Major district roads ..	296.22	378.52	....	674.74
(4) Other district roads ..	8.57	825.07	....	833.64
(5) Village roads ..	....	1,544.99	....	1544.99
(6) Municipal roads ..	....	....	598.11	598.11
Total ..	989.21	2,748.58	598.11	4,335.90
II. Surface Classification—				
(1) Cement concrete ..	33.11	5.43	11.82	50.36
(2) Black-topped ..	775.78	201.90	345.68	1,323.36
(3) Water-bound macadam ..	180.32	1,591.88	136.83	1,909.03
(4) Granular Material ..	....	514.33	98.69	613.02
(5) Lower types ..	....	435.04	5.09	440.13
Total ..	989.21	2,748.58	598.11	4,335.90

TABLE No. 2—OTHER DISTRICT ROADS IN THANE DISTRICT

Name of road	Existing length (1969-70) (in kilo- metres)
(1)	(2)
(1) Sanjan-Dongaon-Amgaon to National Highway No. 8.	6.03
(2) Gholvad-Dahanu Road Station	13.07
(3) Amgaon-Dhamangaon-Bormal	11.44
(4) Badalapur-Patgaon	22.14
(5) Gholvad Station to Khunawade	5.02
(6) Nawapada-Naniwali	6.85
(7) Approach road from State Highway No. 2 to Asole-Karvele-Vadu.	6.73
(8) Bordi-Talvali	5.00
(9) Jamshet-Talasari	16.70
(10) Awale-Vashind	9.25
(11) Mokhada-Sarsun	4.02
(12) Mokhada-Vangani to Dhadhare	10.44
(13) Kinhavali-Kochare to Tokawade-Tembhurni road.	7.65
(14) Ashagad-Dehene	3.27
(15) Badalapur-Rayate	12.27
(16) Sakhare-Saturli	10.42
(17) Approach road from State Highway No. 2 to Umele-Juchandra.	7.40
(18) Tandulwadi-Saphale	7.74
(19) Khadki-Kaneri	4.80
(20) Naniwali branch road	5.63
(21) Shahapur-Saralambe via Sarangpuri	5.42
(22) Manor-Vikramgad	22.49
(23) Boisar-Nandare	2.81
(24) Dhasai-Tembhe	7.20
(25) Talasari-Sawa	2.40
(26) Danda-Kelwa Station	8.85
(27) Anjur to National Highway No. 3	8.25

TABLE No. 2—*contd.*

(1)	(2)
(28) Khutal-Kanhhol	8.04
(29) Kudus-Kanchad	17.09
(30) Padagha-Kinhavali	7.84
(31) Mal-Phangulgavan to State Highway No. 2 ...	3.12
(32) Ambadi-Koshta	6.47
(33) Sakurli-Thitvi to State Highway No. 2 ...	8.03
(34) Vasa-Vevaji	4.42
(35) Dhasai-Kothere	9.24
(36) Panchmarg-Dandi	6.44
(37) Palghar-Kamara	4.42
(38) Kudus-Ambivali	4.22
(39) Jamsar-Malghar	11.24
(40) Chinchawali-Padaghe	2.40
(41) Shivale-Dehari	9.66
(42) Nadhai-Nativali	3.58
(43) Chas-Mokhada	8.08
(44) Savarpada-Botoshi	4.00
(45) Talasari-Kirmire	3.22
(46) Palsunda-Chandrachi-Met	4.00
(47) Khodala-Adoshi	3.22
(48) Karegaon-Kashti	3.22
(49) Jawhar-Pathardi	6.05
(50) Sakhare-Malwade	12.88
(51) Sopara-Pelhar	6.84
(52) Vevaji-Narayanthana	4.42
(53) Kawade-Karanjgaon	6.00
(54) Bhisol-Ambarnath	4.10
(55) Awale-Ambadi	8.00
(56) Akloli-Vajreshwari	3.54
(57) Tokarkhand-Pawarwada	3.80

TABLE No. 3—STATISTICS OF ROADS AND VEHICLES IN MAJOR TOWNS IN THANE DISTRICT, 1971-72

Town	Length of roads (in Km.)					Public Transport Services					Tongas	Hand Carts	Bicycles	Trucks	Motor cars	Motor cycles and scooters
	Cement	Asphalt	Metalled	Others	Total	Route (in Km.)	No. of Vehicles	No. of Taxi cabs.	No. of Auto rikshaws	Bullock-Carts						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) Vasai ..	..	25	4	1	30	62	40	34	..	10	31	81	N.A.	N.A.	N.A.	N.A.
(2) Kalyan ..	3	41	18	40	102	60	N.A.	N.A.	..	48	134	219	375	..	..	N.A.
(3) Jawhar ..	..	7	11	..	18	..	..	..	..	25	..	6	60	16	10	10
(4) Thane ..	2	58	1	..	61	20	N.A.	12	70	25	120	749	..	..	..	N.A.
(5) Bhiwandi-Nizampur	..	35	..	..	35	..	..	107	..	2	119	652	762	..	..	N.A.
(6) Dombivli	1	20	44	1	66	..	..	..	..	11	24	50	450	N.A.	30	20
(7) Ambarnath	1	16	18	29	64	18	5	..	10	50	..	8	450	40	60	10
(8) Ulhasnagar	1	12	84	68	165	8	..	9	..	35	20	45	N.A.	..	..	N.A.
Total of towns in the district	8	214	180	139	541	168	45	162	80	206	448	1,810	2,097	56	100	40

N.A. = Not available.

TABLE NO. 4—ANNUAL PROGRESS REPORT OF
DURING FOURTH

Serial No.	Particulars	Actuals, 1969-70		Actuals, 1970-71	
		Total	Capital	Total	Capital
(1)	(2)	(3)	(4)	(5)	(6)
<i>A. State Sector—</i>					
1	District roads .. ..	..	..	0.79	0.79
2	Thane creek bridge ..	17.12	17.12	16.39	16.39
3	Roads of economic importance.	..	..	28.67	28.67
4	District roads in hilly and inaccessible areas.	..	..	6.33	6.33
5	Investigation of anti-sea erosion work of Washi.	..	..	..	..
6	Black topping .. ..	..	..	..	..
7	Railway safety works ..	..	..	..	..
Total—State Sector		17.12	17.12	52.18	52.18
<i>B. Local Sector (I. P. and Other Local Bodies).—</i>					
1	District roads ..	4.95	..	1.40	..
2	Roads in hilly and inaccessible areas.	1.42	..	0.91	..
3	Black topping .. ..	..	..	..	..
Total—Local Sector		6.37	..	2.31	..
Total—Transport and Communications (Total of A and B)		23.49	17.12	54.49	52.18

TRANSPORT AND COMMUNICATIONS IN THANE DISTRICT
FIVE-YEAR PLAN

Actuals, 1971-72		Actuals, 1972-73		Bud get, 1973-74	
Total	Capital	Total	Capital	Total	Capital
(7)	(8)	(9)	(10)	(11)	(12)
9.01	9.01	41.01	41.01	18.61	18.61
15.85	15.85	4.54	4.54	1.87	1.87
13.22	13.22	14.17	14.17	....	....
....	....	21.35	21.35	14.16	14.16
....	....	....	....	1.00	1.00
....	....	....	....	2.21	2.21
....	....	....	....	20.56	20.56
38.08	38.08	81.07	81.07	58.41	58.41
1.00	....	2.22	....	8.31	....
1.96	....	4.17	....	4.30	....
2.17	....	2.47	....	8.28	....
5.13	....	8.86	....	20.89	....
43.21	38.08	89.93	81.07	79.30	58.41

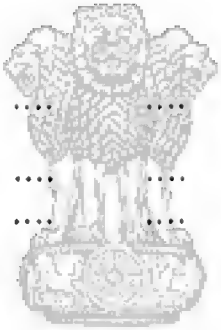
TABLE

Serial No.	Particulars	Actuals, 1973-74		Progress Report	
		Total	Capital	Item	Unit
(1)	(2)	(13)	(14)	(15)	(16)
A. State Sector—					
1	District roads	.. 19.18	19.18	Road improvement	Km
2	Thane creek bridge	.. 10.37	10.37	Do.	.. Do.
3	Roads of economic importance.	..	..	Do.	.. Do.
4	District roads in hilly and inaccessible areas.	14.88	14.88	(i) New construction	Km
				(ii) Bridges	.. No.
				(iii) C. D. Works	No.
5	Investigation of anti-sea erosion work of Washi.	..	..	Work	..
6	Black topping	.. 10.09	10.09	Roads	.. Km
7	Railway safety works	.. 18.80	18.80	Works	.. No.
Total—State Sector		.. 73.32	73.32		
B. Local Sector (I. P. and Other Local Bodies)—					
1	District roads	.. 8.09 (Revised)	..	New construction	Km
				I. P. Works	.. Km
				C. D. Works	.. No.
2	Roads in hilly and inaccessible areas.	4.34 (Revised)	..	New construction	Km
				C. D. Works	.. No.
3	Black topping	.. 8.16	..	P.W.D. Works	Km
Total—Local Sector		.. 20.59	..		
Total—Transport and Communications (Total of A and B)		93.91	73.32		

P.W.D. Works—Public
C.D. Works—Community
I.P. Works—Irrigation

No. 4—*contd.*

(Figures of Rs. are in lakhs)

for the year ending 1973-74 Physical Targets and Achievements					
1969-70 Achievement	1970-71 Achievement	1971-72 Achievement	1972-73 Achievement	1973-74 Target	Achievement
(17)	(18)	(19)	(20)	(21)	(22)
292	2.50	....	3	10.40	....
....	....	13	1.80	....	....
....	5	14	3	....	....
....	....	....	....	5	....
....
....	....	....	....	22	....
....	....	....	....	3	....
 सत्यमेव जयते					
8.30	....	....	....	....	....
15.20	....	1.35	....	11.00	9.50
....	...	....	....	13	3
....	13.20	4.50	9.50	15.80	8.00
....	8	....	....	15.00	8.00
....	2.80	8.65	32.00	28.20

Works and Housing Dept.
Development Works.
and Power Works.

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TABLE NO. 5—MAJOR BRIDGES UNDER THE JURISDICTION OF THE

Name of Bridge (1)	Name of road (2)	Name of creek or river (3)	Year of construction (4)	Cost of construction (5)
				(Rs. in lakhs)
Thane Creek bridge	Bombay-Pune National Highway	Thane Creek	1972	.. 436.91
Vasai Creek bridge	Bombay-Ahm-adabad National Highway	Vasai Creek & Ulhas river	March 1963 to February 1970	114.37
Kalwa bridge	Bombay-Pune National Highway	Thane creek	N.A.	....
Railway over bridge	Do.	Central Railway	....	....
Railway over bridge	Do.	Central Railway	....	....
Kaman creek bridge	Bombay-Ahm-adabad National Highway	Kaman creek	November 1963 to March 1967	11.12
Vandri	Do.	Vandri river	November 1962 to January 1965	4.33
Tansa	Do.	Tansa river	November 1962 to April 1964	90.6
Vaitarna	Do.	Vaitarna river	November 1962 to March 1966	11.82
South Kasheli	Bombay-Agra	Thane creek	.. ....	....
North Kasheli	Do.	Do.	.. ....	....

N.A. =
Central spans are high

NATIONAL HIGHWAY DIVISION, THANE, 1972

Year of opening for traffic (6)	Nearest town/village (7)	Type of construction (8)	Length (9)	Average height (10)	Height from mid bed (11)	Width (12)
1972	Washi	.. (see details)	1,883 metres	30 metres	33 metres	48'
1970	Ghod-bandar	Do.	555.36 metres	135'	85'	29' with foot path.
....	Kalwa	Rubble Masonry	....	....	....	....
....	Mumbra	Masonry	....	....	....	....
....	Mumbra	Masonry	....	....	....	....
1967	Kaman	Cost in Silt R.C.C.	....	75'	20'	24'
1965	Sativali	Do.	....	34'	27'	24'
1964	Khanivade	Do.	....	41'	32'	24'
1966	Manor	Do.	....	53'	53'	24'
....	Kasheli	Steel waler girders and trough re-decked by R.C.C. Slabs.	....	....	...	....
....	Do.	Steel deck girders and trough, re-decked by R.C.C. Slabs.	....	....	....	....

Not available.
enough for navigation.

Vf 4497—45a

TABLE NO. 6—DAILY TRAFFIC CENSUS OF IMPORTANT ROADS IN THANE DISTRICT (AVERAGE OF MAY 1973)

Name of Road	Location of count post mileage	Nearby village/town	Carriage width of the road (metres)	Type of surface	Fast moving vehicles				Slow moving vehicles			
					Cars, jeeps and vans	Buses	Trucks	Motor cycles and scooters	Animal driven vehicles	Cycles	Others	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
(1) Eastern Highway.	Express	12/15	Mulund (near Kopri over-bridge).	14.63	B.T.	3,217	423	3,638	538	..	..	..
		15/0	Thane ..	14.63	B.T.	4,142	3,230	3,815	638	..	..	..
(2) Bombay-Agra Road..		24/3	Kapurbavdi (Thane)	7.01	B.T.	4,446	1,586	3,200	888	408	2,579	183
		25/8	Kasheli	..	7.01	1,595	300	2,396	209	118	819	138
		32/5	Bhiwandi	..	7.01	1,734	332	2,428	286	430	1,892	9
		41/3	Padghe	..	7.01	438	128	1,212	87	120	88	6
		52/5	Asangaon	..	7.01	558	243	1,499	161	373	239	..
		54/5	Shahapur	..	7.01	466	205	1,357	113	140	287	18
		57/5	Atgaon	..	7.01	422	104	1,177	46	22	9	3
		60/4	Khadi	..	7.01	290	64	1,098	38	37	10	1
	74/1	Kasara	..	7.01	310	64	1,086	41	670	24	2	

(3) Bombay-Pune Road ..	23/2 Thane	..	7.01 B.T.	1,922	720	2,768	399	240	1,514	..
	28/4 Kalyan	..	7.01 B.T.	877	398	2,103	194	108	712	..
	30/8 Kalyan	..	7.01 B.T.	787	826	1,350	100	89	65	..
(4) Bombay-Ahmadabad Road.	Km. 480 Chinchoti	..	6.71 B.T.	604	54	1,368	45	17	18	1
	Km. 468 Shirsad	..	6.71 B.T.	570	97	1,309	58	158	75	..
	Km. 467 Shirsad	..	6.71 B.T.	460	17	1,084	30	67	63	..
	Km. 436 Sawarkhand	..	6.71 B.T.	397	15	949	48	43	30	..
	Km. 412 Charoti	..	6.71 B.T.	645	18	1,198	103	87	150	1
	Km. 388 Talasari	..	6.71 B.T.	351	8	915	30	49	216	6
(5) Vasai-Kalyan-Ahmadnagar Road	M. 2/1 Manikpur	..	3.66 C.C.	426	832	307	150	124	378	..
	4/2 Manikpur	..	3.66 B.T.	173	443	..	68	97	246	..
	6/2 Bhiwandi	..	7.01 B.T.	830	117	1,094	282	224	1,504	..
	16/2 Bhiwandi	..	6.1 B.T.	35	56	141	13	115	16	..
	20/2 Bhiwandi	..	3.66 B.T.	55	56	127	18	51	15	..
	26/5 Naupada	..	3.66 B.T.	17	23	64	6	80	6	..
	4/4 Kambe	..	3.66 B.T.	112	53	252	53	204	214	5

B.T. = Black Topped. C.C. = Cement Concrete. W.B.M. = Water Bound Macadam.

TABLE No. 6—contd

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(6) Mahim-Manor-Vada-Nasik-Road.	6/0 Palghar		..	3.66 B.T.	260	46	352	118	226	134	..
	18/7 Ten		..	3.66 B.T.	68	19	180	28	123	82	..
	74/5 Manor		..	3.66 B.T.	35	18	15	7	19	21	..
	58/0 Kanchad		..	3.66 B.T.	68	19	180	27	127	82	..
	58/4 Vada		..	3.66 B.T.	265	45	439	228	192	100	..
	0/4 Vada		..	3.66 W.B.M.	205	18	307	184	312	241	..
(7) Dahanu-Jawhar-Nasik Road.	25/6 Khodala		..	3.66 W.B.M.	26	13	39	14	247	160	..
	1/4 Sarvati		..	3.66 C.C.	200	51	309	159	334	441	..
	39/2 ..		..	3.66 W.B.M.	98	69	142	66	126	112	..
	19/2 Jawhar		..	3.66 B.T.	22	38	95	18	113	66	..
	15/5 Kasa		..	3.66 C.C.	40	58	158	19	131	161	..
	14/2 Charoti		..	3.66 C.C.	131	48	259	54	97	104	..
	10/7 Wadha naka near Ranset.		..	3.66 C.C.	99	46	205	27	110	26	..
(8) Jawhar-Pali Road	10/4 Sakhare		..	3.66 W.B.M.	11	18	16	3	5	1	..
	16/4 Vikramgad		..	3.66 W.B.M.	57	23	73	22	111	83	..
(9) Bhiwandi-Vada Road	33/4 Bhiwandi		..	3.66 B.T.	272	136	401	97	322	1,144	..
	45/2 Ambadi		..	3.66 B.T.	418	117	542	416	728	..	29
	52/5 Khupari		..	3.66 B.T.	127	44	264	45	102	44	26
(10) Shahapur-Murbad-Chauk Road.	0/3 Shahapur		..	3.66 W.B.M.	49	108	218	84	204	147	..
	2/0 Murbad		..	3.66 W.B.M.	7	40	136	39	226	126	..

TABLE No. 7—MAJOR BRIDGES UNDER THE JURISDICTION OF PUBLIC WORKS AND HOUSING DEPARTMENT,
THANE DIVISION, 1975

Serial No. (1)	Name of the road (2)	Name of the river/nalla (3)	Mile/ Km No. (4)	Nearest Village (5)	Year of opening (6)	Cost of construction (7)	Structural aspects (8)	Length (9)	Height (10)	Width (11)
1	Mahim- Manor- Vada-Shir- ghat Road	Parnali nalla	Km. No. 3.6	Parnali	.. N.A.	N.A.	Stone masonry arch- ing in lime mortar, with parapet and pavement.	14.6 metres	2.5 metres	5.5 metres
2	Do.	.. Surya river	Km. No. 19.2	Maswan	.. 1941-42	N.A.	C. R. masonry piers and abutments, R.C.C. decking, slab 9 inches thick.	N.A.	N.A.	N.A.
3	Do.	.. Hath river	Km. No. 27	Manor	.. 1964-65	N.A.	C.R. masonry piers and abutments, R.C.C. slab 24 inches thick.	52.5 metres	8.54 metres	5.5 metres
4	Do.	.. Local nalla	Km. No. 37.4	....	1927	N.A.	Stone and lime maso- nry with parapet and C. C. arching.	7.5 metres	1.5 metres	5.5 metres
5	Do.	.. Deherja river	Km. No. 31.2	Karalgaon	N.A.	N.A.	Stone and lime maso- nry in cement- mortar for piers and abutments, R.C.C. slab 12" thick.	91.5 metres	3.66 metres	7.5 metres

TABLE No. 7—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
6	Mahim-Manor-Vada-Shir-ghat Road	Local nalla	Km. No. 26.6	Manor	N.A.	M.A.	Stone and lime masonry concrete arch- ing with stone paving wings and parapet.	13.4 metres	1.68 metres	5.6 metres
7	Do.	.. Pinjal river	M. No. 30	Pali	.. 1955	4,31,700	C. R. masonry in abutments and piers	413 feet	45 feet, 9 inches	24 feet
8	Do.	.. Wagh river	M. No. 44/2 to 44/3	Parali	.. N.A.	N.A.	Iron girder bridge	N.A.	N.A.	N.A.
9	Bhiwandi-Vada Road	Vaitarna river	M. No. 25/0	Vada, Shirsad	1955	4,18,000	C. R. masonry in abutments and piers	415 feet	33 feet	24 feet 9 inches
10	Do.	.. Tansa river	M. No. 31/1	Ambadi met	1955	N.A.	C. R. masonry in abutments and piers	460 feet	30 feet	24 feet
11	Do.	.. Saitani river	M. No. 10/2	Asnoli	1925	N.A.	C. R. masonry in abutments and piers	200 feet	26 feet	22 feet
12	Do.	.. Kamodi river	M. No. 0/8	Bhiwandi	N.A.	N.A.	C. R. masonry in abutments and piers	1,020 feet	20 feet	24 feet
13	Do.	.. Chormali river	M. No. 6/2	Nandithane	1926	N.A.	C. R. masonry in abutments and piers	415 feet	10 feet	20 feet
14	Kalyan-Bhiwandi Road	Uhas river	M. No. 1/1 to 1/2	Kalyan	N.A.	N.A.	N.A.	1,075 feet	21 feet	22 feet

15	Kalyan-Bhiwandi Road	N.A.	..	M. No. 3/2	Pimpalghar	N.A.	N.A.	Stone arching	..	20 feet	9 feet, 6 inches.	21 feet
16	Do.	N.A.	..	M. No. 3/3	Pimpalghar	N.A.	N.A.	Stone arching	..	30 feet	8 feet	18 feet 6 inches
17	Do.	N.A.	..	M. No. 3/5	Pimpalghar	N.A.	N.A.	Stone arching	..	40 feet	8 feet	18 feet 6 inches
18	Kalyan-Murbad-Waishakhare Road.	Kankavira river	..	M. No. 34/7	Waishakhare	1973	2,72,448	High level stone masonry sub-structure and R. C. C. solid, slab for decking 6 spans of 33'	..	475 feet	26 feet	26 feet
19	Dahanu-Jawhar-Mokhada-Trimbak-Nasik Road.	Saroli nalla	..	M. No. 1/4	Saroli	1969	N.A.	C. R. masonry solid slab	21	metres	6.00	N.A.
20	Do.	Saroli nalla	..	M. No. 1/8	Saroli	1963	17,734	C. R. masonry solid slab.	35	metres	6.86	N.A.
21	Do.	Ashgad nalla	..	M. No. 3/4	Ashgad	1963	15,760	C. R. masonry solid slab	67.75	metres	10.06	N.A.
22	Do.	Ganjad nalla	..	M. No. 7/4	Ganjad	1965	N.A.	C. R. masonry solid slab	9.15	metres	4.00	7.01
23	Do.	Valan nalla	..	M. No. 8/4	Ganjad	1962	N.A.	C. R. masonry solid slab	42.7	metres	5.00	6.86

TABLE No. 7—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
24	Dahanu-Jawhar-Mokhada- Trimbak- Nasik Road.	Susan nalla	M. No. 11/3	Vadhane	1964	N.A.	C. R. masonry slab	solid	7.00 metres	5.00 metres	6.86 metres
25	Do.	.. Surya river	M. No. 20/4	Kasa	N.A.	N.A.	C. R. masonry slab	solid	30.5 metres	3.00 metres	6.86 metres
26	Do.	.. Wagh river	N.A.	..	1905	N.A.	Arch bridge	130 feet	10 feet, 6 inches	16 feet	
27	Jawhar-Pali Road.	Nalla	N.A.	Sakhare	N.A.	N.A.	R. C. C. slab	..	42.0 metres	2.5 metres	5.6 metres
28	Do.	.. Nalla	N.A.	Jambhe	N.A.	N.A.	R. C. C. slab submersi- ble	22.0 metres	1.5 metres	5.6 metres	
29	Do.	Nalla	N.A.	Alonde	N.A.	N.A.	R. C. C. slab sub- mersible	22.0 metres	2.5 metres	5.6 metres	
30	Vasai- Ambadi Road.	Nalla	M. No. 4/6	Navghar	1973	4,87,246	R. C. C. deck girders	180 feet	6 feet	N.A.	
31	Do.	.. Nalla	M. No. 16/6	Parol	N.A.	N.A.	Iron girders	102 feet	9 feet	N.A.	
32	Do.	.. ....	M. No. 23.8	Parol	1960	N.A.	R. C. C. deck girders	80 feet	N.A.	N.A.
33	Do.	Saitani river	M. No. 24/1	..	1960	N.A.	R. C. C. deck girders	120 feet	N.A.	N.A.	

34	Shahapur- Lenad- Murbad Road	Bhatsa river	M. No. 1/5	Sapgaon	1950	N.A.	C. R. masonry piers with solid slab	396 feet	18 feet	21 feet
35	Do.	Nalla	M. No. 4/6	Nadgaon	1966	30,928	C. R. masonry piers with solid slab	100 feet	8 feet 6 inches	12 feet
36	Do.	.. N. A.	M. No. 6/7	Shendrun	1975	2,27,887	C. R. masonry piers with solid slab	98 feet	23 feet	24 feet
37	Sativali- Karnan Road	N. A.	M. No. 6/5	Gokhivare	N.A.	N.A.	Arch drain	35 feet	8 feet	12 feet
38	Do.	.. N. A.	M. No. 7/6	....	N.A.	N.A.	Slab drain	39 feet	8 feet	12 feet
39	Do.	.. N.A.	M. No. 11/1	Chondroti	1958	30,300	Minor bridge	80 feet	10 feet	15 feet
40	Shahapur- Shenava Road	Nalla	M. No. 5/7	Shilottiar	N.A.	N.A.	C. R. masonry with stone arching	65 feet	7 feet	15 feet
41	Shenava- Dolkhamb Road	Khaviriver	M. No. 4/2	Vehetoli	1959	N.A.	C. R. masonry with solid slab	20 feet	12 feet	12 feet 6 inches
42	Do.	Nalla	M. No. 7/5	Karade	N.A.	N.A.	C. R. masonry with solid slab	53 feet	8 feet	12 feet
43	Kalyan- Badalapur Road	Nalla	M. No. 0/5	....	1964	N.A.	C. R. masonry	N.A.	N.A.	N.A.

TABLE No. 7—concd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
44	Kalyan-Badlapur Road	Ulhas river	M. No. 9/6 to 9/7	Badlapur	(Work in progress)	C. R. masonry with solid slab	1,560 feet	32 feet	24 feet	
45	Shiroshi-Tembhurli Road	Shahi river	N.A.	Shiroshi	1975	4,54,000 High level, stone masonry for sub-structure and R.C.C. solid slab for decking with 10 spans of 7 metres.	220 feet	26 feet	24 feet	
46	Virar-Kanher Road	N.A.	M. No. 0/4	..	N.A.	Slab drain	..	36 feet	9 feet	10 feet
47	Do.	N.A.	M. No. 3/2	..	N.A.	Slab drain	..	30 feet	8 feet	18 feet
48	Kalyan-Shil Road	Desai nalla	M. No. 7/0	Desai	N.A.	C. R. Stone masonry abutments and pillars with R.C.C. slab with R.C.C. girders.	80 metres	10 metres	6.1 metres	
49	Bandra-Chod-bandar-Thane Road	Chene nalla	N.A.	Chene	1943	N.A.	Raft foundation and concrete piers with solid girders.	220 feet	10 feet	12 feet

N.A. = Not available.

TABLE No. 8—BRIDGES AND CAUSEWAYS IN THANE DISTRICT UNDER THE JURISDICTION OF
THANE ZILLA PARISHAD, 1974.

Serial No.	Road (2)	River or nalla (3)	Mile No. (4)	Nearest village or town (5)	Year of opening (6)	Cost of construction (7)	Average height (8)	Length (9)	Width (10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Murbad Taluka</i>									
1	Tokawade-Shiroshi	.. Kalu river	.. 2/4 and 2/5	....	.. 1958	60,248	15	0 120 0	16 0
2	Umaroli-Dhasai	.. Local nalla	.. 0/4	Umaroli	.. 1957	Not known	4	0 55 0	16 0
3	Umaroli-Dhasai	.. Doifodi river	1/4	Ojiwale	.. 1957	42,816	6	3 145 0	19 6
4	Murbad-Badlapur	.. Local nalla	5/4	....	Not known	Not known	7	3 25 0	20 0
5	Shivale-Tulai	.. Local nalla	1/4	Sakhare	.. 1971	20,000	8	0 32 0	20 0
6	Shivale-Tulai	.. Local nalla	1/6	Sakhare	.. 1971	22,000	13	0 32 0	20 0
7	Saralgaon-Kasgaon	.. Doifodi river	..	Kasgaon	.. 1970	34,775	10	0 85 0	12 0
8	Murbad-Pawale	.. Murbadi river	0/6	Kudawali	.. 1971	27,728	10	0 122 6	12 6
9	Takegaon-Nyashadi	.. Jothandi river	1/4	Talegaon	.. 1971	20,476	15	0 90 0	10 0
10	Talegaon-Nyashadi	.. Murbadi river	..	Ghorale	.. 1972	35,189	5	0 160 0	6 0
11	Talegaon-Nyashadi	.. Local nalla	..	Ambeegaon	.. 1972	5,243	5	0 25 0	6 0
<i>Bhiwandi Taluka</i>									
1	Ambadi-Kunde	.. Dumada nalla	0/1	Chinchavali	.. 1965	36,238	13	0 110 0	12 0
2	Bhiwandi-Parol	.. Nauda nalla	7/7	Chimbipada	.. 1967	66,665	14	0 111 0	12 0
3	Ambadi-Dignashi	.. Dignashi nalla	0/8	Dignashi	.. 1958	23,268	7	6 33 6	12 0
4	Awale-Pachapur	.. Dabhad nalla	0/8	Dabhad	.. 1959	29,542	5	9 33 6	14 6
5	Dugad phata-Dugad village	.. Dugad nalla	0/8	Dugad	.. 1961	19,000	6	6 22 0	12 0

TABLE No. 8—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
6	Gundawali village ..	.. Gundawali <i>nalla</i> .	0/2 Purne	..	1962	Rs. 28,000	Ft. ins. 14 0	Ft. ins. 40 0	Ft. ins. 12 0
7	Bhiwandi-Parol ..	.. Palipada <i>nalla</i>	11/7 Manivali	..	1963	33,000	14 0	49 0	12 0
8	Amne-Nandkar ..	.. Amne <i>nalla</i>	2/1 Amne	..	1963	31,300	13 0	54 0	12 0
9	Bhiwandi-Parol ..	.. Manivali <i>nalla</i>	12/5 Manivali	..	1958	11,000	6 0	26 0	12 0
10	Kharbao village ..	.. Karivali <i>nalla</i>	2/8 Karivali	..	1969	22,004	11 0	29 0	12 0
11	Bhiwandi-Parol ..	.. Joo <i>nalla</i>	3/4 Juvandurkhi	..	1957	8,000	3 6	26 0	12 0
12	Bhiwandi-Parol ..	.. Manivali <i>nalla</i>	13/2 Manivali	..	1959	16,000	4 0	80 0	12 0
13	Bhiwandi-Parol ..	.. Manivali <i>nalla</i>	13/6 Manivali	..	1959	13,000	4 6	30 0	12 0
14	Amne-Bapgaon ..	.. Gandhari <i>nalla</i>	3/5 Babgaon	..	1961	6,500	2 6	48 0	12 6
15	Bhiwandi-Parol ..	.. Manivali <i>nalla</i>	12/8 Manivali	..	1959	14,000	6 0	30 0	12 0
16	Bhiwandi-Parol ..	.. Kharble <i>nalla</i>	1/6 Kharbale	..	1958	12,000	4 0	25 0	12 0
17	Bhiwandi-Parol ..	.. Lakhtivali <i>nalla</i>	5/3 Lakhtivali	..	1972	54,370	7 0	86 0	22 0
18	Bhiwandi-Parol ..	.. Chimbipada <i>nalla</i>	7/4 Chimbipada	..	1971	77,265	7 6	102 0	22 0
<i>Vasai Taluka</i>									
1	Sativali-Kaman ..	.. Dingo <i>nalla</i>	1/1 Chinchoti	..	1957	30,300	10 0	100 0	14 0
2	Kiravali-Umele ..	.. Vasai creek	1/1 Umele	..	Not known	Not known	3 6	100 0	12 0
3	Usgaon-Bhatane ..	.. Tansa river	.. Bhatane	..	1967-68	94,913	12 0	157 0	18 0
4	Sativali-Kaman ..	.. Khara Goda <i>nalla</i>	10/5 Gokhivare	..	Not known	Not available	4 0	35 0	15 0
	Sativa li-Kaman ..	.. Sativali <i>nalla</i>	7/6 Sativali	..	Do.	Do.	8 0	39 0	12 0

6	Virar-Agashi-Arnala	..	Vasai creek	1/5 Bolinj	..	Do.	8	0	68	0	N. A.
7	Kiravali-Umele	..	Vasai creek	0/1 Kiravali	..	Do.	4	0	63	0	10 0
8	Chulne-Manikpur	....	Chulne creek	0/6 Chulne	..	1967-68	7	0	35	0	12 0

Kalyan Taluka

1	Rayate-Dahagaon	..	Nalla	0/3 Rayate	..	1967	....	N. A.	31	0	N. A.
2	Rayate-Dahagaon	..	Nalla	1/7 Manjarti	..	1967	18,923	8	0	16	0
3	Rayate-Dahagaon	..	Nalla	3/4 Vaholi	..	1968	....	10	0	31	0
4	Goveli-Titawala	..	Nalla	0/7 Goveli-Ghotsai	..	1968	10,710	10	0	53	6
5	Dombivli-Manpada	..	Nalla	1/2 Dombivli	..	Not known	Not known	8	0	53	6

Vada Taluka

1	Kudus-Kanchad	..	Mukhi <i>nalla</i>	1/3 Khanivali	..	Not known	4	0	26	0	12	0	
2	Kudus-Kanchad	..	Ambiste <i>nalla</i>	4/5 Ambiste	..	1950	4	0	22	3	12	0	
3	Kudus-Kanchad	..	Ambiste <i>nalla</i>	4/6 Ambiste	..	1950	4	0	N.A.	N.A.			
4	Vada-Ainshet	..	Ainshet <i>nalla</i>	0/4 Ainshet	..	1950	5	0	28	6	10	0	
5	Parali-Tembhe	..	Parali <i>nalla</i>	0/3 Parali	..	1950	4	0	28	0	12	0	
6	Met-Dakivali	..	Dakivali <i>nalla</i>	1/2 Met	..	1967	26,829	8	0	69	0	10	0
7	Desai-Agashi	..	Agashi <i>nalla</i>	1/2 Desai	..	1971	12,032	5	0	26	0	12	0
8	Desai-Agashi	..	Agashi <i>nalla</i>	1/8 Desai	..	1971	17,522	6	0	52	0	12	0
9	Bilghar-Kalambhe	..	Sonale <i>nalla</i>	0/3 Bilghar	..	1971	13,557	8	0	69	0	12	0
10	Khanivali-Gourapur	..	Gourapuri <i>nalla</i>	0/5 Khanivali	..	1971	27,595	8	0	52	0	10	0

Palghar Taluka

1	Saphale-Mahim	..	Noor river and creek.	4/7 Makunsar	..	1969	30	0	455	0	22 0
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TABLE No. 8—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)					
						Rs.	Ft. ins.	Ft. ins.	Ft. ins.					
2	Boisar-Chinchani	..	Tarapur- Chinchani creek.	9/3	Tarapur	..	1969	16	0	73,500	0	22	0	
3	Boisar-Chanchani	..	Banganagar creek	2/5	Parnali	..	1966	10	0	90,000	0	20	0	
4	Boisar-Chanchani	..	Navapur creek	1/3	Parnali	..	N. A.	20	0	Not known	35	0	20	0
5	Navghar approach	..	Navghar creek	0/4	Navapur	..	1965	6	0	48,950	50	0	20	0
6	Palghar-Boisar	..	Dudh <i>nalla</i>	2/1	Kurgaon	..	1972	8	0	4,213	52	0	20	0
7	Palghar-Boisar	..	Betegaon <i>nalla</i>	4/8	Panchali	..	1942	5	0	Not known	45	0	16	0
8	Palghar-Boisar	..	Betegaon <i>nalla</i>	5/1	Panchali	..	1942	4	0	Do.	45	0	16	0
9	Manor-Bhopoli	..	Kosbad <i>nalla</i>	0/4	Kosbad	..	1932	2	0	Do.	90	0	16	0
10	Saphale-Mande-Tembhi-Khodave	..	Saphale creek	0/4	Saphale	..	1968	2	0	35,217	60	0	20	0
11	Saphale-Mande-Tembhi-Khodave	..	Saphale creek	0/4	Saphale	..	1959	5	0	Not known	30	0	20	0
Ulhasnagar Taluka														
1	Badlapur Station to Badlapur village.	..	Ulhas river	9/5	Badlapur	..	Not known	15	0	450	0	10	0	
2	Haji-Malang	..	Kharad <i>nalla</i>	5/5	Kharad	..	Do.	5	0	40	0	17	0	
3	Pune Link Road	..	<i>Nalla</i>	0/6	Kate Manivali	..	Do.	7	0	22	0	20	0	
4	Pune Link Road	..	<i>Nalla</i>	1/8	Kate Manivali	..	Do.	5	0	20	0	23	0	
Jawhar Taluka														
1	Talawade-Vikramgad	..	Gunthan <i>nalla</i>	6/1	....	..	1967-68	7	0	80	0	20	0
2	Talawade-Vikramgad	..	Chinchghar	6/4	Chinchghar	..	1968-69	5	6	40	0	20	0	

3	Talawade-Vikramgad	..	Dadade <i>nalla</i>	6/6	Dadade	..	April 1927	Not known	7	6	60	0	12	0
4	Jamsar-Wadoli	..	Small <i>nalla</i>	5/5	....	..	1963-64	Do.	9	0	72	0	11	0
5	Jamsar-Wadoli	..	Small <i>nalla</i>	6/7	....	..	Not known	Do.	9	0	30	0	21	0
6	Jamsar-Wadoli	..	Small <i>nalla</i>	7/2	....	..	1962	Do.	9	0	40	0	12	0
7	Jamsar-Wadoli	..	Small <i>nalla</i>	8/3	....	..	1965	Do.	9	6	42	0	12	9
8	Jamsar-Wadoli	..	Wadoli <i>nalla</i>	9/3	Wadoli	..	1961-62	Do.	5	6	21	0	12	9
9	Nyahale-Nandgaon	..	<i>Nalla</i> .	4/0	....	..	1971-72	Do.	6	3	48	0	20	0
<i>Mokhada Taluka</i>														
1	Vihigaon-Khodale	..	Vaitarna river	3/6	Koregaon	..	1910	30,443	28	3	24	0	15	3
2	Vihigaon-Khodale	..	..	10/2	Khodale	..	..	....	24	0	11	0	15	9
3	Khodale-Mokhada	..	..	2/8	Khodale	..	1967	1,65,000	8	0	130	0	18	0
4	Khodale-Mokhada	..	Shendyachimet <i>nalla</i> .	7/4	Savarpada	..	1961	1,30,000	15	0	120	0	20	0
5	Khodale-Mokhada	..	Pinjal river	9/2	Palsunde	..	1935	....	9	0	60	0	18	0
6	Khodale-Mokhada	..	Wagh river	11/7	Mokhada	..	1963	1,30,000	13	0	145	0	22	0
<i>Talasari Taluka</i>														
1	Umbargaon-Narayanthane	..	....	2/5	Narayanthane	..	1961	Not available	12	0	26	0	20	0
2	Sanjan-Dongri-Amagaon	..	Dongad <i>nalla</i>	2/8	Dongri	..	1956	Do.	12	0	260	0	20	0
3	Sanjan-Talasari	..	Zari <i>nalla</i>	7/2	Zari	..	1971	N.A.	12	0	75	0	20	0
4	Udhwa-Talasari	..	<i>Nalla</i>	19/4	Udhwa	..	1971	49,349	13	0	80	0	20	0
5	Umbargaon-Narayanthane	..	Zari creek	2/3	Udhwa	..	1960	Not available	10	0	18	0	21	6
6	Zari-Borigaon	..	Creek	1/1	Zari	..	1967	47,974	6	0	185	0	14	0
<i>Shahapur Taluka</i>														
1	Shahapur-Dolkhamb	..	<i>Nalla</i>	5/7	Dhasai	..	Not known	Not known	6	0	60	0	..	..
2	Shahapur-Dolkhamb	..	<i>Nalla</i>	7/7	Sathagaon	..	1972	34,844	2.6 m.	10	0	..	..	..

TABLE No. 8—concd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
3	Shahapur-Dolkhamb	..	4/2	....	1960	Not known	12	0	15
4	Shenawe-Khutal	..	7/5	Sathagaon	..	Not known	8	0	22
5	Shenawe-Khutal	..	13/6	Partoli	..	Do.	7	0	12
6	Shenawe-Khutal	..	16/4	Kinhavali	..	51,944	12	0	12
7	Shenawe-Khutal	..	16/8	Kinhavali	..	55,000	45	0	12
8	Kasara-Washale	..	2/4	Kasara	..	1957	15	0	14
9	Dolkhamb-Sakurli	..	0/1	Dolkhamb	..	1957	12	0	22
10	Dolkhamb-Bhinar	..	0/1	Dolkhamb	..	....	12	0	14
<i>Dahanu Taluka</i>									
1	Kasa-Udhwa	..	17/6	Udhwa	..	1970	32	9	20
2	Dahanu-Malyan	..	0/3	Dahanu, Malyan	..	1969	28	0	20
3	Kasa-Udhwa	..	4/5	....	..	1967	14	0	20
4	Gholwad-Chikhale	..	0/1	Gholwad	..	1970	66,750	14	0
5	Vangaon-Ranshet	..	2/5	Govane	..	1971	31,808	15	0
6	Kainad Village Road	..	2/6	Kainad	..	1972	68,000	15	0
7	Dahanu-Chikhale	..	3/1	Chikhale	..	Not known	30	0	12
8	Bordi-Zai	..	0/4	Bordi, Zari	..	Do.	30	0	20
9	Gholwad-Bordi	..	0/7	Gholwad	..	Do.	25	0	20
10	Vangaon-Ranshet	..	4/5	Gowane	..	Do.	20	0	20
11	Vangaon-Ranshet	..	6/1	Sakhare	..	Do.	20	0	20
12	Zai Approach Road	..	0/2	Bordi	..	Do.	20	0	20

TABLE NO. 9—CARGO HANDLED AND CHIEF IMPORTS AND EXPORTS FROM MAJOR PORTS IN THE DISTRICT (1959-60)

Port (1)	Cargo traffic			Chief commodities of		
	Imports (Tons) (2)	Exports (Tons) (3)	Total (Tons) (4)	Imports (5)	Exports (6)	
(1) Dahanu ..	513 *(1,084)	14,798 (32,484)	15,311 (33,568)	Cement, tiles, food-grains	..	Timber, firewood.
(2) Tarapur ..	31	5	36	Tiles, dry fish ..	..	Firewood.
(3) Navapur-Agashi.	87	3	90	Tiles ..	..	....
(4) Satpati ..	19	24	43	Timber, firewood, food-grains	..	Dried fish.
(5) Kelva-Mahim ..	123 (34)	30 (25)	153 (59)	Tiles ..	..	Timber.
(6) Arnala-Agashi ..	466	55,001	55,467	Tiles, oil ..	..	Timber, fire-wood, sand.
(7) Vasai ..	448 (8,281)	1,891 (108)	2,339 (8,389)	Miscellaneous commodities ..	..	Fire-wood, sand.
(8) Uttan ..	48	54	102	Fire-wood, food-grains ..	..	Dried fish.
(9) Bhiwandi ..	290 (214)	984 (39)	1,274 (253)	Cement, sand ..	..	Fire-wood, food-grains.
(10) Manor ..	111	12	123	Fire-wood, miscellaneous commodities.	..	Dry fish.
(11) Kalyan ..	79	2,693	2,772	Timber, dry fish ..	..	Clay, bricks, food-grains.
(12) Thane ..	426 (420)	114 (Nil)	540 (420)	Fire-wood, timber, straw, bricks	..	Steel and iron pipes.

* Figures in brackets are for the year 1960-61.

TABLE No. 10—OPERATION OF MAHARASHTRA STATE ROAD
TRANSPORT CORPORATION AS ON 31ST MARCH
1974 IN THANE DIVISION

Serial No. (1)	Items (2)	Figures as on 31st March 1974 (3)
1	No. of routes	438
2	Route distance (kilometres)	23,685
3	Average route distance (kilometres)	54.0
4	Daily average effective kilometres operated	1,07,824
5	Average number of buses held—	
	(a) Ordinary	721.6
	(b) Luxury	15.6
6	Daily average number of buses on road	486
7	Average vehicle utilization (kilometres)	223.2
8	Percentage load factor	68.44
9	Number of passengers travelled per day	1,28,502
10	Average distance travelled per passenger (kilometres)	28.25
11	Total traffic receipts during the year (in thousand rupees)	5,94,00
12	Average earnings per passenger (in paise)	126

Source.—Divisional Controller, State Transport, Thane Division, Thane.
(Socio-Economic Review)

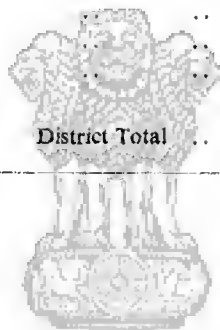
TABLE No. 11—POSTAL, TELEGRAPH AND TELEPHONE
STATISTICS* IN THANE DISTRICT

Year (1)	No. of post offices (2)	No. of telegraph offices (3)	No. of letter- boxes (4)	No. of post- men (5)	No. of tele- phones (6)	Radio licences issued and renewed (7)
1950-51 ..	111	23	N.A.	N.A.	N.A.	1,648
1961-62 ..	188	26	300	124	701	12,618
1965-66 ..	314	42	690	275	2,441	59,639
1970-71 ..	252	57	642	265	8,816	97,633
1971-72 ..	252	59	642	277	8,953	1,01,633
1972-73 ..	255	58	643	294	8,995	1,07,189
1973-74 ..	256	58	743	337	9,883	1,65,446

* Source.—Socio-Economic Review, Thane District.

TABLE No. 12—RURAL BROADCASTING STATISTICS IN THANE DISTRICT AS ON 31st MARCH 1975

Taluka	No. of villages having receiving sets	Rural population benefited
(1)	(2)	(3)
(1) Thane	56	1,72,426
(2) Vasai	37	99,071
(3) Palghar	153	1,73,258
(4) Dahanu	68	91,071
(5) Talasari	24	42,651
(6) Jawhar	81	44,671
(7) Mokhada	63	48,800
(8) Vada	175	1,42,883
(9) Bhiwandi	196	2,20,364
(10) Shahapur	80	49,179
(11) Murbad	150	74,587
(12) Kalyan and Ulhasnagar	38	1,04,345
District Total ..	1,121	12,63,306



नमः शिवाय नमः



सत्यमेव जयते

CHAPTER 8—MISCELLANEOUS OCCUPATIONS

INTRODUCTION

THE RAPID GROWTH OF POPULATION, RISING INCOME, EVER increasing needs and changes in pattern of living of the people are the factors which are responsible for the growth of a number of occupations which, though miscellaneous in character, are necessary to society.

These occupations provide the means of livelihood to a large number of persons in the district, and day by day they are attracting an increasing number of persons. The employment in these occupations is on the increase since the Second World War. According to the Census of 1961 as many as 67,618 persons were engaged in the miscellaneous occupations and other services, of whom 53,229 persons were males and 14,389 were females. They formed 8.69 per cent of the total workers in the district. The employment in these occupations and services increased to 73,836 as per 1971 Census. The proportion of workers in these occupations and services in the district is influenced by a very large section of population residing in the limits of Thane district, but actually working in Greater Bombay. About 23.72 per cent of the total workers in miscellaneous and other services in the district were engaged in public services and 11.62 per cent in educational services in 1961. नवमं नयनं

Most of the persons employed in miscellaneous occupations are engaged in the production of articles of daily consumption and in rendering useful services to the community. The number of persons engaged in medical profession, education, journalism, law and public services is less than the persons engaged in barbery, tailoring, hotels and restaurants, laundering, etc.

With the growing industrialization and mechanization and the consequent quickening of life processes such occupations are seen to multiply. Rapid growth of such occupations is both a factor in the pace of urbanization and an index of the degree of prosperity. Many of these occupations are a combination of trade and industry.

A sample survey of the selected occupations was conducted in 1970 at some places in the district, viz., Thane, Wada, Dahanu Road, Dahanu, Palghar, Jawhar, Bhiwandi, Murbad, Badlapur, Dombivali and Kalyan. While conducting the survey information about certain aspects such as number of units existing, tools and appliances

used and their cost, average monthly expenses incurred, market for the products, labour and power used, capital requirement and average earnings, was collected from individual establishment. The survey covered the following occupations :—

(1) hotels and restaurants, (2) lodging and boarding houses, (3) cold-drink houses, (4) tailoring shops, (5) hair-cutting saloons, (6) *pan-bidi* shops, (7) flour mills, (8) laundries, (9) sweetmeat houses, (10) bakeries, (11) bicycle marts and repairing shops, (12) flower vendors, (13) fruit and vegetable vendors, (14) type-writing institutes, (15) photo-frame makers, (16) dairies, (17) watches, radio and fan repairers and a number of other services.

LAUNDRIES

Laundering is a hereditary occupation of the *Parits* or *Dhobis* who are distributed over the entire district. They are either Konkanis or Deccanis. In the past their hereditary occupation was only washing the clothes but not ironing. A *Parit* was one of the twelve *balutedars* and was paid in kind. With the disintegration of the *baluta* system this system is now on the decline.

The following statement gives the number of persons engaged in this occupation in 1901, 1911, 1921, 1931, 1951 and 1961 :—

Year	Persons			Males	Females
1901	512	340
1911	502	318
1921	262	170
1931	728	223
1951	1,121	1,064
1961	1,261	1,152

Of the 1,261 persons in this occupation in 1961, as many as 806 were in urban and 168 in rural areas in the district.

The equipment and accessories required by a laundry depends upon the size of establishment. A medium-sized laundry provides employment to five to six workers, the average monthly earning of a worker being about Rs. 180.

The net average monthly income of a large laundry was found to be Rs. 1,500, that of a medium-size laundry Rs. 900 and of a small one Rs. 600.

TAILORS AND DRESS-MAKERS

Formerly tailors belonged to the Shimpi caste among Hindus and followed tailoring as a hereditary occupation. During the last few decades, however, persons from various castes are found to take to tailoring as an occupation.

The shops are generally located in the main centres, viz., near bazar places or on the main roads, though there are numerous one-man tailoring shops.

The Census of 1901 shows that the number of tailors, milliners, dress-makers, embroiderers and darners was 935 which increased to 4,371 in 1961. The 1971 Census enumerates that the number of persons engaged in this occupation decreased to 2,924. The following statement shows the statistics of persons engaged in this occupation in 1901, 1911, 1921, 1931, 1951, 1961 and 1971 :—

Year			Total Persons	Males	Females
1901	..	..	935	624	311
1911	..	..	918	599	319
1921	..	..	778	556	222
1931	..	..	975	564	411
1951	..	..	2,663	2,436	237
1961	..	..	4,379	3,485	894
1971	..	..	2,924	N.A.	N.A.

N.A. = Not available.

Of the 2,924 tailors in 1971 in the district, 1,721 were in urban and 1,203 in rural areas.

The fixed capital of the surveyed establishments ranged from Rs. 5,000 to Rs. 7,000 for a big establishment and from Rs. 2,500 to Rs. 3,500 for a medium establishment and Rs. 500 to Rs. 1,500 for a small-size establishment.

The owners of large tailoring shops employ tailors on monthly basis and get the work done with their help. The salary paid to a worker varies from Rs. 150 to Rs. 200 per month. Some of the shop-keepers employ workers on piece-rate basis. The average earning of such a tailor amounts to about Rs. 300 per month.

BARBERS AND HAIR-DRESSERS

A barber known as *Nhavi* or *Hajam* is one of the twelve village servants known as *balutedars*. Under the *baluta* system in the past a *Nhavi* was paid in kind which consisted of a share in food-grains

and other agricultural produce. In the past a *Nhavi* used to serve in Hindu religious functions where his presence was obligatory. Even now he has retained his position in rural areas though it is on the decline. Generally persons from the *Nhavi* community are mainly engaged in this occupation though in urban areas some persons from other communities have also taken to this profession.

The saloons in towns and in Thane city are well furnished and well equipped with costly chairs, mirrors, radio-sets, fans etc. Generally owners of large-sized saloons employ four to five workers and pay them at piece rate.

As per the old *Thana Gazetteer* the *Nhavis* numbered 3,457 in 1,884 who belonged to two classes viz., Konkanis and Ghatis.

According to the Census of 1901 the number of persons engaged in this occupation was 1,406 in the district which decreased to 950 and 942 in the years 1911 and 1931, respectively, and increased to 1,675 and 1,766 in the years 1951 and 1961, respectively. Most of the persons engaged in this occupation are males. Of the 1,766 persons in 1961, 970 were in urban areas and 796 in rural areas.

The investment of hair-cutting saloon varies from Rs. 500 to Rs. 5,000 depending upon the size of the establishment. The net earning of a saloon varies from Rs. 300 to Rs. 1,000 per month.

MANUFACTURE OF AERATED AND MINERAL WATERS

This is mainly a seasonal occupation as the demand for aerated waters and cold drinks is higher in the hot season. However, the manufacture of these drinks continues throughout the year. Factories manufacturing aerated waters and cold drinks are of recent origin and they are located in Thane City and big towns such as Dombivali, Kalyan, Ulhasnagar, Ambarnath, Vasai, Dahanu and Palghar.

Sugar, saccharine, colours, scents, salt, ice, juice of various types of fruits, essences and preservatives are the things required as raw material for aerated and mineral waters. For certain drinks, milk, curds, cream, fruits and dry-fruits are required. Essences and preservatives are available in Thane City and Bombay. The cost of raw material consumed by the manufactories in summer season varies from Rs. 680 to Rs. 1,500 per month.

The production consists of soda-water, ice-cream soda, ginger, pineapple, raspberry, orange soda, lemon soda and *sharbat*, ice-cream, *lassi*, *masala* milk, etc. In addition to above, patent cold drinks manufactured by other companies out-side Thane district are also served to customers.

The capital requirement of a unit varies from Rs. 5,000 to Rs. 10,000 depending upon the size of establishment.

The following statement shows the number of persons engaged in this and allied occupations during the Censuses from 1901 to 1971 in Thane district :—

Year	Occupation	Persons	Males	Females
(1)	(2)	(3)	(4)	(5)
1901	Manufacturing and vendoring of aerated waters.	37	35	2
1911	Vendors of wine, liquors and aerated waters.	357	335	22
1921	Manufacturing of aerated waters and ice.	8	7	1
	Vendors of wine, liquors, aerated waters and ice.	355	330	25
1931	Manufacturing of aerated and mineral waters and ice.	9	9	..
	Vendors of aerated and mineral waters.	171	72	99
1951	Manufacturing of aerated waters and other beverages.	85	84	1
	Vendors of aerated waters and ice in shops.	170	169	1
1961	Production of mineral and aerated waters.	110	106	4
	Production of ice.	52	51	1
	Production of ice-cream, ice-candy, milkshake, etc.	29	29	..
1971	Manufacture of beverages, tobacco and tobacco products.	2,072	..	..

HOTELS AND RESTAURANTS

Hotels and restaurants are becoming a necessity due to the changing pattern of socio-economic life in urban society. Hotels and restaurants are mainly found in Thane city and in bigger towns, whereas small eating houses are found all over the district. *Irani* hotels and restaurants with stores, *Udipi* (South Indian) refreshment houses and *Gomantak* hotels are found in Thane city and in the big towns near Greater Bombay. Big hotels and restaurants provide hot as well as cold drinks, catables, and in a few cases they serve meals. The *Irani*

hotel owners sell some things of daily requirements such as razor blades, tooth-brushes, tooth-pastes, cosmetics, cakes, biscuits, eggs, etc.

The cost of raw material consumed by the establishments in towns varies from Rs. 500 to Rs. 12,000 per month.

Many of the hotels and restaurants in Thane, Dombivali, Kalyan and Ulhasnagar are well-equipped with furniture, radio-sets, fans, stainless steel utensils and record-players.

Workers in hotels and restaurants in towns are employed on salary basis, which varies from Rs. 75 to Rs. 200 per month. Besides salary, meals, snacks and tea are also given to them.

Generally these establishments are located in rental premises, the rent ranging from Rs. 130 to Rs. 1,500 per month in urban areas, and from Rs. 20 to Rs. 100 per month in rural areas.

The net income of 38 hotels and restaurants surveyed varied from Rs. 450 to Rs. 1,500 per month.

The following statement shows the employment in this profession from 1901 to 1971 in Thane district :—

Year		Persons	Males	Females
1901	.. ..	48	20	28
1911	.. ..	892	536	356
1921	.. ..	860	670	190
1931	.. ..	718	556	162
1951	.. ..	4,902	4,817	85
1961	.. ..	5,643	5,536	107
1971	.. ..	10,660	N.A.	N.A.

N.A. = Not available.

There were as many as 2,529 establishments in the district in 1971.

LODGING AND BOARDING HOUSES

Growing industrialisation, migration of people on account of transfer in services, increase in business and official tours and migration of pupils on account of higher education, are the important factors which have contributed to the growth of urbanization. Increasing urbanization and scarcity of residential houses have led to the rapid

increase in the number of lodging and boarding houses during the last about three decades.

Lodging and boarding houses are mainly found in Thane, Kalyan, Ulhasnagar, Dombivali and Bhiwandi.

The capital invested in utensils, furniture and other items varies from Rs. 1,000 to Rs. 10,000 in case of boarding houses. The capital investment in lodging houses varies from Rs. 1,000 to Rs. 8,000.

The net earning of boarding houses varies from Rs. 800 to Rs. 5,000 and that of lodging units from Rs. 600 to Rs. 4,000 per month.

PAN-BIDI SHOPS

In the past the business of betel-leaf selling was the hereditary occupation of the *Tamboli* community of Hindus. They were found in Salsette, Kelwa-Mahim, Satpati and Chinchani and they were migrants from Gujarat. Their main business was selling betel-leaves and *apta* leaves (*Bauhinia racemosa*) for cigarettes and tobacco. According to the old Thana *Gazetteer* the number of Tambolis was nineteen in 1884 in Thane district.

Now-a-days *pan* and *bidi* shops are found all over the district. An average shop provides employment to a single worker. According to the Census of 1961 the number of persons engaged in *pan-bidi* shops was 1,358. The 1971 Census, however, did not give a separate enumeration of persons in *pan-bidi* shops.

Bidis and cigarettes are obtained from the agents of manufacturers or from wholesale traders. Many of the *pan-bidi* shop-owners also keep miscellaneous articles such as razor blades, soaps, match-boxes, etc., for sale. The expenditure of a medium-size shop ranges from Rs. 450 to Rs. 1,200 per month, while in small shop it ranges from Rs. 200 to Rs. 400.

The average income of a medium-size establishment surveyed was found to be about Rs. 1,000 per month and that of a small-sized shop Rs. 500 per month.

FLOUR MILLS

Flour mills have now become a common sight in the towns as well as in villages. With the introduction of electricity electric motors are installed in place of oil engines.

Some flour mills are also found to combine de-husking of rice and grinding of chillies, turmeric and salt. The grinding and de-husking charges vary from commodity to commodity. These flour mills undertake the de-husking and polishing of rice and crushing of pulses and they use special machines for the purpose.

The following figures show the number of persons engaged in flour mills from 1901 to 1961* :—

Year			Persons	Males	Females
1901	..	..	3,813	1,600	2,213
1911	..	..	3,591	1,411	2,180
1921	..	..	69	52	17
1931	..	..	299	131	168
1951	..	..	1,169	1,108	61
1961	..	..	1,115	1,018	97

Most of the mills are one-man establishments, the proprietor performing a major part of the job. But in a few cases one or two workers are also employed. Generally these establishments are housed in rented premises, the rent ranging between Rs. 35 and Rs. 50 per month.

The equipment consists of stone-grinders, belts, electric motors or oil engines. The cost of the equipment varies from Rs. 3,000 for a small-sized establishment to Rs. 10,000 for a large-sized establishment. The cost of fuel or power consumed varies from Rs. 50 to Rs. 150 per month. An average income of a flour mill ranges between Rs. 500 and Rs. 750 per month.

BICYCLE REPAIRING

Bicycle shops are found on a larger scale in Thane, Kalyan, Ambarnath, Dombivali and Ulhasnagar. Besides bicycle repairing, they give bicycles on hire and sell spare parts. Generally they maintain about eight to fifteen bicycles for hiring. According to the Census of 1961 the number of persons engaged in this occupation was 286, of whom 215 were in towns and the rest in villages. The accessories are available in local markets.

SWEET-MEAT MARTS

In the past sweet-meat making was the hereditary occupation of *Akkarmashe* and *Pardeshi* castes of Hindus. They were found in Vasai and Kelwa-Mahim. Now-a-days persons from other communities have also taken to this occupation. According to the Census of 1961, 1,922

*The figures for 1901 and 1911 include the number of persons engaged in hand-process, and the figures for 1951 and 1961 include the number of persons engaged in grain purchasing also.

persons were engaged in this occupation in the district, of whom 1,906 persons were males and the rest were females.

BAKERIES

Bakeries were originally started to supply the needs of westernised people and the rich gentry in the district. Now, however, the products of bakeries are popular with all strata of society. The people from the well-to-do class relish quality bread, biscuits and pastries. The middle class and poorer people are found to purchase bread for the sake of convenience. A majority of the bakers in the district are Parsis and Muslims.

Some bakeries are attached to restaurants. Two big bakeries in Bombay, of which one is a Government of India undertaking, have a very big clientele in Thane as well.

Wheat flour, *maida*, sugar, salt, yeast, butter, *ghee*, oil, flavouring essences and eggs, which are required as raw material, are brought from Bombay. The cost of raw materials for a bakery ranges from Rs. 1,500 to Rs. 6,000 depending upon its size.

An oven, a few utensils and a few cupboards are required as equipment for a bakery.

The smaller establishments are managed with the help of family-members though a few are found to employ one or two workers. The medium-sized bakeries are found to employ four to eight workers who are paid between Rs. 150 and Rs. 275 per month.

The products of bakeries include bread, biscuits, toasts, cakes, etc. The average net income of an establishment varies from Rs. 600 to Rs. 1,200 per month.

The statistics of employment in this occupation, as per Census returns, are given below :—

Year		Persons	Males	Females
1901	.. ..	58	56	2
1911	.. ..	154	151	3
1931	.. ..	270	270	...
1951	.. ..	535	528	7
1961	.. ..	994	943	51

LEGAL SERVICES

The number of legal practitioners has increased during the last about three decades due to the increase in the number of cognizable and non-cognizable offences, tenancy legislation and other legislative measures pertaining to marriage and civil life. The Census returns for

1901, 1911, 1921, 1931, 1951, 1961 and 1971 recorded the number of persons engaged in this occupation as under :—

Year	Persons	Year	Persons
1901	... 271	1951	... 414
1911	... 255	1961	... 424
1921	... 109	1971	... 27*
1931	... 134		

* Only practising advocates and pleaders.

MEDICAL PROFESSION

The rise in money income, increase in the facilities of medical education and growing health consciousness among the people have contributed to the growth of medical profession. This is a prosperous profession as compared to many others. The average earning of an allopathic practitioner is about Rs. 2,000 per month. The following statement shows the number of persons engaged in medical services in the years 1901, 1911, 1921, 1931, 1951, 1961 and 1971 :—

Year	Persons	Males	Females
1901	.. .. 313	223	90
1911	.. .. 391	328	63
1921	.. .. 224	168	56
1931	.. .. 824	669	155
1951	.. .. 1,711	1,273	438
1961	.. .. 3,112	2,235	877
1971	.. .. 3,079	N.A.	N.A.

N.A. = Not available.

PUBLIC ADMINISTRATION

With the increase in the multifarious functions and shouldering of greater responsibilities by the Government, employment in Government services has increased immensely. The employment in public services has increased not only because of the increase in new activities but also due to expansion of old activities. The 1901 Census shows that the number of persons engaged in civil services was 4,766 in State Government, 400 in municipalities and 1,010 in village level services.

The statistics of employment in this profession, based on Census classification, are given below :

RECREATIONAL SERVICES

Recreational services include the production, distribution and exhibitions of motion picture, ballet and dancing parties, musicians, exhibition of circus, carnivals and the services of indoor and outdoor sports.

There has been a phenomenal increase in the number of theatres and recreation services. This increase is further accentuated by the growth of urbanization and industrialization in the district. Recreational services are available on large scale in Thane city and in big towns. There are well-decorated and air-conditioned theatres in Thane and Kalyan. The following statement gives the number of persons engaged in recreational services in Thane district during 1901, 1921, 1951, 1961 and 1971 :—

Year			Persons	Males	Females
1901	..	..	408	331	77
1921	..	..	305	255	50
1951	..	..	1,076	1,009	67
1961	..	..	748	701	47
1971	..	..	792	N.A.	N.A.

N.A. = Not available.

DOMESTIC SERVICES

Domestic services include services rendered by house-keepers, car-drivers, door-keepers, matrons and stewards, cooks and bearers, butlers, waiters and maids.

The employment in these services has increased during the last about thirty years due to industrialisation and growing urbanization. The rise in income of the urbanites has also contributed to rise in employment of domestic servants.

The wage-earnings of the maid-servants are very meagre ranging from Rs. 25 to Rs. 60 per month, while those of stewards, car-drivers and nurses range from Rs. 150 to Rs. 400 per month. The conditions of service of this entire class are very uncertain and they do not have any security of job.

The following figures indicate the number of domestic servants in Thane district in the Census years from 1901 to 1971 :—

Year			Persons	Males	Females
1901	..	..	12,653	11,441	1,212
1911	..	..	10,989	8,086	2,903
1931	..	..	7,300	5,984	1,316
1951	..	..	11,773	10,089	1,684
1961*	..	..	7,912	3,988	3,924
1971*	..	..	3,401	N.A.	N.A.

N.A. = Not available.

RELIGIOUS SERVICES

This occupation includes the services of priests, readers, preceptors, *fakirs*, monks, nuns, astrologers and religious mendicants.

Now-a-days with the spread of education and the growth of scepticism the people are becoming apathetic to rituals and religious ceremonies. This has contributed to the decline in the importance of this profession. The persons from many families who traditionally followed this occupation are now forced to find new avenues of employment.

The statistics of employment in this occupation in Thane district are given below :—

Year			Persons	Males	Females
1901	..	..	1,568	1,417	151
1911	..	..	1,453	1,339	114
1921	..	..	971	839	132
1931	..	..	820	605	215
1951	..	..	1,410	1,328	82
1961	..	..	1,466	1,391	75
1971	..	..	685	N.A.	N.A.

N.A. = Not available.

Besides the occupations described above, there are many other occupations like *neera* vendoring, grain parching, photo-frame making, *agarbatti* making, fish vendors, fish curing and salting, watches and radio repairing, photography, etc. which provide employment to a section of the working population. Though these occupations are miscellaneous in character they have an economic significance and they are very useful to the community in general.

*Decline in number due to change in census classification.

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CHAPTER 9—ECONOMIC TRENDS

SECTION I—STANDARD OF LIVING

INTRODUCTION

THE CONDITIONS OF ECONOMIC LIFE THROUGHOUT THE GREATER part of the district in the past showed the inherent miseries from which there was no escape. The great majority of the people found comfort in a teaching which told them that happiness could only be obtained through extirpation of desire. They regarded suffering as a matter of course, and sought the joy of life through suppression of wants. A bulk of the tribal (*adivasi*) population in the district accepted the eternity of human ignorance and the vanity of human power. An average *adivasi* man in the past yielded with fatalistic resignation to the sordid economic conditions to which he was wedded by tradition and habit. He chose a way of life which was characterised by superstition, backwardness, gentleness and introversion which all co-operated to enfeeble him economically. The oppressed and poverty-stricken *adivasi* remained content with his economic lot through a conviction of nature's mastery over man, and of the working of the inexorable laws which determine human fortunes.

A considerable proportion of peasants were badly in debt as they had to borrow to meet the needs of life. Their broad acres of land dwindled rendering them either landless or petty land-holders. Sales under civil court decrees were frequent as the money-lender generally took his debtor into court after frightening him into renewing and renewing until the last bond was for the whole sum he is worth in the world. The creditors bought the land for a nominal sum. The poor husbandmen were also forced to mortgage their services until the original loan and interest were worked off. The service mortgaging husbandmen who were virtually serfs could hardly escape their serfdom in life-time.

In the wake of poverty and ignorance a number of husbandmen, in the past, were addicted to drinking which hastened their economic ruin and shattered the standard of living. The findings of the Collector of Thane district, as recorded in the Land Revenue Administration Report for Bombay Presidency (1922-23), are very interesting for studying the standard of living of the people.

"Thane District would be a much more prosperous district if it drank less. The Land Revenue demand is 15 lacs per year, the Forest Revenue is 15 lacs and the Excise Revenue is 38 lacs. The meaning of these figures involving payment of lacs of rupees in wages and repayment of the same in liquor shops is that either owing to dearth of labour, the agricultural and forest labour is paid much more than what this labour should command from economical point of view, or that the standard of household comfort of these people is so low that they spend more than 50 per cent of the wages on drink. Both factors are working as they are inter-dependent. The curse of drink means sapping of vitality and early death. The population does not increase rapidly and dearth of labour is the natural consequence, especially as Thane is next door to Bombay. The people are most scantily clothed ; their huts are cheap frame-works of mud and bamboos, they do not spend even one rupee per year on education of their children and their food is the coarsest. In fact there is no improvement in their mode of living or standard of comfort for generations while their wages have gone up threefold during the last 10 years. The surplus income goes mostly to the country liquor shop. Hundreds of political agitators, both local and from Bombay and Poona, visit the taluka towns in course of the year and preach "Boycott, Swadeshi and Swarajya", but not one of these gentlemen cares to penetrate into the villages to teach them to improve their standard of home-comfort, to educate their children or to lay by a little from their fat wages for the rainy day. Directly we try to reduce the number of liquor shops so as to lessen temptation to the people, the number of illicit distillation offences goes up. In the monsoon there is a still working in almost every village where the mhowra flowers are buried underground. The number of excise offences discovered is but a small percentage of those that go undetected in this district of heavy monsoon and inaccessible and difficult *nalas* and valleys. Verily, it is a very drunken district and the results are seen in the pigmy physique, and low intellect of the people. At least a generation will lapse before compulsory primary education can bring about improvement."

Independence and economic planning, however, brought forth momentous changes in the general economy of the district, the most prominent among which was the distinct progress of industrialisation in the Thane-Kalyan belt. These changes in the district economy, which are analysed at length in the second section of this chapter, have had an important bearing on shaping the standard of living of the district population in general and the urban population in particular.

Industrialisation gave rise to new classes in the society such as technocrats, managerial cadres, industrial workers and salesmen who

constitute distinct economic groups. In the nature of things, the income earnings of these economic classes are very much higher than their rural counterparts who are wedded to agriculture and allied activities. Industrialisation also encouraged the development of the tertiary sector which provided gainful employment to thousands. The industrial and tertiary sectors which together provide employment to persons in this district gave birth to the new emergent economic stratification which stands very much in contrast to the agricultural classes in society. The persons in these sectors enjoy a distinctly better standard of living than their rural counterparts in the district.

Modern education and development of a progressive outlook in the urban areas changed many of the ideas about living standards which appeared to be insipid and incongruous to the rising expectations. The propagation of liberal ideas and the influence of socialistic pattern of society, gradually but definitely, changed the ideas about standard of living of the people in urban areas.

The spread of trade unionism has made the industrial worker conscious about his rights in the fruits of production. It is quite noteworthy that even a landless labourer who was virtually a serf in the past has started agitating for a subsistence wage and a right to better living. All classes in the present-day society are clamouring for economic betterment.

The Government is undertaking considerable measures for the economic betterment of the people, such as implementing programmes known as Fifteen Point Programme and the Employment Guarantee Scheme. These are very ambitious programmes which aim to provide gainful employment to every able-bodied person, a shelter to every one, betterment of the conditions of landless labourers, and craftsmen, relief to the small land-holders, abolition of rural indebtedness, emancipation of bonded labour, minimum wages to agricultural labourers and the socio-economic development of the weaker sections in the society. The progressive land reforms, money-lending legislation, abolition of the *Palemudi* system, agricultural development programmes, loans to cultivators and artisans, expansion of educational and medical facilities are but a few of the measures which have started an improvement in the economic condition of the people. The family planning programme which is implemented by Government on a priority basis, will have a definite impact on the economic condition of the middle class and poor class of society.

As things appear at present, though the increasing population obviated, to some extent, the increase in material resources, the fact remains that the conditions of living are obviously better than before. Diversification of manufactured articles has resulted in the easy

availability of a variety of articles which go along with better standard of living than before. During the last about twenty years, a number of luxury articles including radio sets, television sets, transistors, almirahs, wrist-watches, refrigerators, electrical appliances, fashionable garments and decorative articles, which were so very rare in the past, have become quite common in the district in general and the urban areas in particular.

The remarkable increase in the social amenities during the post-Independence period have had a deep impact on the standard of living of the people. The immense increase in educational facilities and the propagation of education even in the interiors of the district have also an important bearing on the standard of living of the people. Practically every big village and town in the district is provided with secondary education facilities. University education which was formerly beyond the reach of students in interior villages in the past is now available to them within a radius of twenty to twenty-five miles. The modern media of mass communication such as radio broadcasting, television, cinema, documentary films and newspaper have been instrumental in bringing about consciousness about better living in the urban as well as rural areas. Audio-visual publicity has also played an important role in this respect.

The observations about the standard of living of the various classes of people in the district are based upon the findings of a sample survey conducted for the purpose. Information regarding the living conditions and economic life of the people was collected by contacting representative households. Economic data about the family budgets of such households was also collected. In fact the account is primarily based on the economic data regarding family budgets collected as per a *proforma* prepared for the purpose. Besides, general information was obtained by interviewing some citizens in the district. It may, however, be noted that while the description of standard of living outlined below is based on the data from the family budgets and on-the-spot investigation, statistical accuracy is not claimed for the same. Since there is no published or unpublished material available on the subject, the description given below is of a general nature.

For purposes of investigation, a household is taken to be a unit of sampling. The net average annual income of a household is taken to be the basis of classification and households surveyed are grouped as under :—

Group I	... Annual income of Rs. 7,200 and above.
Group II	... Annual income ranging between Rs. 3,600 and Rs. 7,200.
Group III	... Annual income below Rs. 3,600.

There is a considerable proportion of tribal population in the district which can be distinguished from the rest of the population not only from the ethnological point of view but also from the economic point of view. The tribals have a number of cultural peculiarities and a typical social structure which are responsible for giving a peculiar shape to their economic life. Traditionally they are extremely poor, conservative in their outlook towards life and are not easily amenable to change. For centuries they are living under oppressive conditions and economic serfdom which are very peculiar to them. It is therefore necessary to furnish the account of their standard of living separately from that of the income groups mentioned above. Hence the account of their standard of living is given separately by treating them as an economic group having a distinct identity.

Group I: The higher income group of persons in this district includes industrialists, businessmen, technocrats, highly-paid *government officers, managerial personnel in industries, doctors, advocates, professors, and landlords. For purposes of describing the general standard of living the very rich persons in the district are not included in this income group. These persons, by virtue of their higher incomes, have a very high standard of living which can hardly be said to be representative of the economic conditions in India.

The income of persons in this group increased considerably during the post-Independence period. The spectacular expansion of industries in the Thane-Kalyan industrial belt has been instrumental in swelling the income of entrepreneurs, technical personnel, executives and businessmen. Along with the growth of the industrial sector in this zone, there has been considerable growth of tertiary sector which has contributed to the unprecedented rise in the income of a section in society. The income of professional classes, such as, medical practitioners and advocates also rose very high during the last about twenty-five years. The salary-earnings of government servants have also gone up, but they lag very much behind those of their counterparts in the private sector.

In the nature of things, the pattern of consumption of the persons in this income group is quite in keeping with their income. Most of the people in this group are more outspoken about their rising expenditure, while they speak about their rising income with many reservations. However one finds that the rising expenditure is generally commensurate with the rising income. As a matter of fact, on-the-spot investigations reveal that the persons in this income group are much better off at present than in the past.

*There were 79 government servants falling in this income group in the district in 1966.

There have been considerable changes in the general pattern of consumption of this class in society. A number of luxury goods, which could not be conceived in the past, have become common household items. An owner of a small-scale factory, a manager of an industrial concern, an engineer, a doctor or an advocate all of them individually and severally feel that a refrigerator, radio-gram, a sofa-set, a telephone, a television set and occasionally a motor car are a few of the items they need to lead a comfortable life. A number of electronic appliances, including a television set, are highly in demand. The sale of radio-sets, television sets, electric fans, motor cars, sophisticated furniture, almirahs and costly garments during the last few years speaks of the rising standard of living of the persons in this income group. A variety of shops selling luxury articles have come up during the last about twenty-five years in Thane and Kalyan towns, as also other places. Besides, luxury articles are brought from the Bombay market everyday. Since a large number of persons in the Thane-Kalyan-Ambarnath zone go for service every day to Bombay they purchase many of their requirements from the fashionable Bombay markets. The huge influx of goods from Bombay which cannot be determined in terms of value is an important factor in understanding the standard of living of the people in Thane district.

The material and intellectual intercourse which some parts of Thane district have with metropolitan Bombay has shaped the pattern of living in those parts. As a matter of fact it is difficult to distinguish the Thane people from the Bombay citizens. Practically an average Thane citizen can be regarded as on par with a Bombay suburban citizen so far as living conditions are concerned. He has to maintain continuous intercourse with the Bombay social life by virtue of his employment acquaintances. He shares all the joys and sorrows of an urban life with his counterparts in Bombay.

It is a matter of observation that a person in this income group likes to have and strives to have all the amenities of a decent city life. He has become more dress-conscious on the pattern of a Bombay citizen. The wide use of terylene, decron, nylon and rayon textiles in the district is an illustration. Newspapers, cinema and other media like radio are also responsible for the closer contact of the towns and villages in Thane with the Bombay fashions. A majority of the people in urban areas have become medically conscious with the result that expenditure on medicines forms an important part of the family budget. The enormous increase in medical expenses is mainly on account of increased consciousness. It is common knowledge that epidemics, pestilence and illness were taken in the past as natural phenomena brought about by evil spirits or the wrath of deities. The impact of

tradition was so deep that every attempt to cure illness, especially of an epidemic type, was frowned. A variety of drugs and medicines have become common in the district, so also the number of medical practitioners has increased considerably during the last about twenty-five years. The medical and health services of the Government have also been responsible for increasing medical consciousness and in reducing the rate of mortality.

An outstanding achievement in the post-Independence period in this district as elsewhere in Maharashtra is the spread of education. There has been a remarkable improvement in educational facilities not only in urban areas but in rural areas as well. There is also a strong urge for education, except probably among the *adivasis*. Education in its turn has contributed to the improvement in the general standard of living. The proportion of educated is much higher in this income group than in the other income groups.

It is well known that there is an acute housing problem in the urban areas in general, and Thane, Dombivli, Kalyan, Ambarnath and Ulhasnagar towns in particular. The housing problem is characteristic of the rapid growth of urbanisation, and is also a curse of the enormous development of Bombay City. Not only the rents have increased but also the prospective tenant has to shell out considerable amounts of money by way of good-will for occupancy rights and deposit. Even the well-to-do in this income group find it difficult to secure proper accommodation in the towns. A very high proportion of monthly income, ranging from fifteen to thirty-five per cent, is required to be spent on house rent.

In keeping with the pattern of urban life, practically every family has to earmark a good amount of money for travelling. This may be in the form of a price for a season ticket for suburban trains as well as for occasional journeys to outside places. An average family in this income group spends about Rs. 100 on milk, Rs. 50 on vegetables, Rs. 175 on grocery articles, Rs. 20 on domestic servants, Rs. 12 on electricity, Rs. 20 on religious affairs, Rs. 35 on medical treatment and Rs. 100 on miscellaneous items per month. Clothing absorbs about Rs. 1,200 of the annual expenditure.

The cost of living in the urban areas in the district especially in Thane, Dombivli, Kalyan, Ulhasnagar, Ambarnath, Bhiwandi and Vasai towns is higher than that in the rural areas. This is mainly attributable to the impact of Bombay life which is characterised by ultra modern fashions in living and the state of urbanisation. The wants of the people in the towns are much more varied than those in other areas. The proximity of Bombay city affords more avenues of spending which puts a strain on the family budgets. In keeping with the pattern of

urbanisation, the cost of services and the prices of staple foodgrains, milk and vegetables are higher in these towns.

In the nature of things, the persons in this income group have a considerable saving potential and a propensity to save. There are varied avenues of saving including banks, life insurance, unit trust, and small savings besides contribution to provident fund. A number of persons in this group are found to invest their savings in life insurance, unit trust, small savings certificates and shares of limited companies. Investment in shares, debentures and various loan schemes is becoming more and more popular, and can be regarded as an indication of improvement in economic condition of the class of persons in question. Practically every family in this income group maintains a saving account in banks, while savings in fixed deposits are by no means uncommon.

Group II: The medium income group which is conceived to have an annual income between Rs. 3,600 and Rs. 7,200 comprises petty businessmen, retail traders, industrial workers, employees in *government and private sector, school teachers, owners of petty industrial units, medical practitioners and medium land-holders.

The income of the salaried class as well as those connected with industry and trade has increased considerably during the last about two decades. Minimum wage legislation in respect of industrial workers and revision of pay and dearness allowance in case of government servants have led to rise in their earnings from time to time. It is common knowledge that earnings of these classes of persons have almost doubled after Independence. However, the rise in income has been considerably wiped out by the rise in prices. Consequently, the real income which is a sure indicator of standard of living has not increased much. A salaried person in this income group commends economic lot in the past when he could satisfy his wants for a small sum, and expresses his utter dissatisfaction with the present condition. His present economic problems are attributable mainly to the increasing wants and expectations.

A land-holder in this group who is found to be in possession of fifteen to twenty acres of land is outspoken about his economic problems and complains that the white-collared gentry in towns is much better off. All efforts to control prices of agricultural produce without controlling prices of manufactured goods and agricultural inputs are detrimental to the economic interest of the land-holder. Although the garden crop lands, which form only a fraction in this district, are highly paying to their owners, the vast tracts of rice lands are far from

*There were 700 government servants in this income group in the district in 1966

lucrative. After deducting the cost of inputs and wage charges, the net income which accrues to him by virtue of his ownership of the land hardly exceeds Rs. 200 per acre.

Professionals, retail traders and petty industry owners are probably much better off than their counterparts in this income group.

The pattern of consumption of the people in this income group is shaped by the pattern of their income as well as the growth of urbanisation. The compulsions of urban environment forces an average householder to choose a pattern of living over which he has practically no control. The average monthly expenditure of a family in this group amounts to Rs. 400 on items such as food-grains, grocery, vegetables, milk, oils, electricity, education, entertainment, house-rent and domestic servants, while annual expenditure on clothing amounts to about Rs. 550, medical treatment Rs. 250 and miscellaneous items and obligations about Rs. 300. Of the items of monthly expenditure, food-grains account for Rs. 100, milk Rs. 60, education Rs. 90, grocery articles Rs. 75, vegetables Rs. 30 and house-rent Rs. 45.

An average family in this income group possesses radio-set, electric fans, good furniture, and almirahs. Almost all men are found to put on terylene clothes while their women are rarely found to be using dress materials other than terene, nylon, georgette or costly voiles. The impact of Bombay fashions on this income group is as deep and definite as on the first income group. In fact most of the urban families in this income group are found to imitate their counterparts in the neighbouring city of Bombay with which they have close contacts. As noted earlier in this chapter it is difficult to distinguish the people in the towns in this district from those in the Bombay suburbs in all respects.

The change in pattern of consumption during the last about twenty-five years is more conspicuous in the developing towns than in the under-developed towns and in villages. In the towns of Murbad, Mokhada, Jawhar, Shahapur and Wada, life is still more rural than urban. In fact these towns stand mid-way between the towns in the industrial belt and the villages as regards urbanisation and standard of living. The people in these towns as in villages are still found to lead a simple life limiting their expenditure to necessities of life and to moderate comforts permissible from their income. They spend much less on items like vegetables, milk, house-rent, clothing, entertainment and domestic servants than those in the developing towns. Their needs are adjusted to the peculiar environment and general economic conditions which are not comparable to the conditions in the developing towns.

However, in the case of people in the under-developed towns and villages also there is a definite improvement in the standard of living

during the post-Independence period. There seems to be considerable consciousness as regards improving the standard of diet, clothing, education and health.

Group III: This income group comprises industrial workers, artisans, petty shop-keepers, low-paid employees in *government and private sectors, primary teachers, small land-holders, landless tenants and landless labourers. The annual income of persons in this group is conceived to be less than Rs. 3,600, though the unemployed or under-employed among them have no regular sources of income. Though there is no reliable data on unemployment, field investigations corroborate to the fact that the proportion of unemployed or under-employed is higher in this income group than in the first and second income groups. A considerable number of persons in this income group are not gainfully employed for the entire year. There are also quite a few who inspite of the physical ability to work, are reduced to paupers for want of stable employment. It is interesting to note that though there has been considerable growth of industrialisation in parts of the district, the employment opportunities generated by industrialisation have not accrued much to the local people. There has been an influx of population from all parts of the country which has to some extent deprived the local population of the gains of growing employment opportunities. No wonder therefore that rapid industrialisation in parts of the district has not contributed much to the improvement in the economic condition of the local people. The state of affairs in the rural and semi-urban areas is almost miserable. The Employment Guarantee Scheme introduced by the State Government in recent years is however a solace to the people in rural areas.

The income of most of the people in this group barely suffices for the satisfaction of the essentials of physical existence. The condition of the small land-holders and landless labourers is still worse. An ordinary man is content with the scantiest clothing. By and large he is unschooled and meets with endurance the unkindly caprices of Nature and the hereditary burden of his debts. Naturally he surrenders himself to the sordid economic conditions to which he is wedded and gives but scanty attention to the measures which can possibly improve his lot.

A majority of the householders in this income group have to maintain large families, though it is necessary to mention the consciousness about family planning. It is widely admitted that within the limitations of ignorance and conservative character of the uneducated masses, the call of the family planning movement has received a good response from the people who now accept it as essential. The success of the

*There were 8,940 government servants in this income group in the district in 1966.

movement is bound to improve the standard of living of the people in the years to come.

The average monthly expenditure of a family in this group is found to be about Rs. 225. Of this, expenditure on food-grains forms the largest proportion, i.e., 60 per cent. Many of them cannot afford to consume rice which is the staple food of the district and are forced to consume *wari* and *nachani* which are cheaper substitutes. Items like milk, *ghee* and fruits are beyond their reach though they may indulge in their consumption on rare occasions. Their consumption of vegetables is also of a seasonal nature since vegetables are cheaper in certain seasons. Their general diet comprises coarse rice, *wari* or *nachani* bread and inferior type of curry. They live on a diet far inferior to the most moderate standards of adequate nutrition.

The items of annual expenditure include clothing, education, medical treatment and miscellaneous items. Clothing accounts for about Rs. 390, education Rs. 200, medical expenses Rs. 100 and miscellaneous items about Rs. 125 per year. Many students from families in this group however avail of the facility of free education extended by the Maharashtra Government to all persons whose annual income does not exceed Rs. 1,800. This facility has been a great blessing to the poor people since good opportunities which were denied to them by their poverty are now within their reach.

In conclusion it may be observed that the growth of urbanisation, proximity to Bombay City and growth of industrialisation in the district have led to a fair degree of improvement in the standard of living of the people even in this poor income group. As in the case of other sections of the people, the wants of the poor have also increased. They are also found to strive to make the best out of their limited income and to assure a better future for their young ones by giving them good education.

Adiwasi population: The tribal population in Thane district has by far the lowest standard of living of all sections of the population as they just subsist on meagre means of living. Their standard of living may be said to be characterised by sordid economic conditions and joyless withered lives. An average tribal reconciles himself to the pangs and agonies of poverty which he inherits and submits to human suffering and ignorance. The oppressive conditions around him drive him to a conviction that he must live a life of stubborn endurance and economic oppression.

The report on the evaluation of the scheme of Eradication of Palemodi System in Thane District, prepared by the Tribal Research Institute, contains interesting information about economic conditions of the tribals in the district. The account of standard of living of

the tribals which follows is based upon the facts and figures from this report.

The normal family of a tribal consists of more than five members and some families are found to have a dozen or more members. Poverty is the main reason for the prolific breeding of these people. Their population increased from 2,84,949 in 1951 to 5,00,058 in 1961 which means 76 per cent increase in a decade or 7.6 per cent per annum. It is impossible for a family of five to twelve persons to subsist on the meagre income from agriculture. Some of them supplement their income from agriculture by occasional labour on construction works and forests. The total income however is not adequate to meet even the basic requirements of tribal standards even on a modest scale. The tribal development blocks provide facilities for improvement in the agricultural land of the tribals. But the results are not encouraging.

The average yield per acre in case of inferior millets is Rs. 80 to Rs. 90 and of paddy Rs. 225 to Rs. 250, while the cost of cultivation of the former amounts to Rs. 40 to Rs. 45 and of the latter Rs. 100 to Rs. 125. Thus the net income from millets comes to about Rs. 40 and from paddy about Rs. 125 per acre. The annual income of a household possessing about five acres of land* may not exceed Rs. 450 to Rs. 500 from millets and paddy taken together. With this extremely meagre income it is not possible for a family with five to twelve members to get food to live for more than five to six months in a year. This income is not sufficient even for the coarsest and the most inferior food for more than six months in a year. Hence the poor tribals have to take recourse to edible roots, wild fruits and animal food, while many of the days are spent in half starvation. The lean months of the rainy season are particularly bad when the tribal has to hunt out food from the jungles, especially the wild roots and fruits which he knows by experience. He also hunts for animal food which is also quite scarce. It is needless to say that he is very badly fed and scantily clothed. Children are hardly provided with any clothing except a *lungoti* while men wear a *lungoti*, a short shirt and a small loin-cloth. Women wear a sort of saree which is very much short in length and breadth, and a meagre *choli*.

Their houses are small thatched huts just enough for the family to sleep and can be compared to those of any of the poor tribals in Maharashtra. Very few among the tribals are literate, though quite

*The sample survey of four villages in the district, conducted by the Tribal Research Institute, revealed that of the 436 households surveyed, 73.17 per cent. possess less than five acres of land, 11.47 per cent. possess between six and 10 acres, 2.75 per cent. between eleven and fourteen acres, and 2.29 per cent. more than sixteen acres, while forty-five families did not possess any land.

a few of them are now sending their wards to schools. The propagation of education has had some impact on the tribals who now realise that education will contribute to the well-being of their children in the years to come.

The extreme poverty of the tribal compels him to incur debt which he repays at the harvest time with interest ranging from 200 to 300 per cent for four months. The harvest is pre-sold by way of a forward contract of sale of produce in favour of the money-lender. This system is known as *Palemodi*. The evils of this system are too many and are beyond the scope of this study. In order to eradicate the *Palemodi* system the Government of Maharashtra introduced a scheme to give relief on the lines of the *Khavati tagai* to all tribals which enables them to meet the expenses for subsistence in the lean months. This scheme known as *Palemodi* Eradication Scheme is intended to free the tribals from the clutches of unscrupulous money-lenders. A family is given a loan of about Rs. 100, of which about 50 per cent is in kind.* This scheme has had a beneficial effect upon the tribals who now feel that the *palemodi* system was an evil which further dragged them to poverty of the worst kind. The relief in cash and kind, under the scheme, helps the tribals in their period of distress and enables them to get at least a part of the means of survival. Though this has not contributed to the improvement in their standard of living in meaningful terms it will have a good impact on their living conditions in the years to come.

SECTION II—ECONOMIC PROSPECTS

INDUSTRIALISATION

Thane occupies a unique position in the economic map of Maharashtra. The large-scale industrial development in Greater Bombay triggered a cumulative process of expansion in the Thane industrial belt which has almost reached the status of a modern enclave economy. Industrialisation is conventionally regarded as having substantial spread effects through the reduction in the cost structure which occurs as industrial growth gains momentum. It is also usually expected that the costs facing industrial entrepreneurs will decline over a period of time as the infrastructure of manufacturing is extended and its operation is improved. It was as per this process that the initial propulsive force toward industrial expansion was provided to the Thane industrial belt by the neighbouring metropolis. The economic stimuli for this

* The Government advanced loans amounting to Rs. 31,081 in cash and kind to the tribals and economically backward cultivators in Thane district in 1966-67 under this scheme.

spectacular industrial expansion came from the extensions in the infrastructure of power, banking, transport and communications facilities from the Bombay metropolis. The rapid development of the Thane belt may also be explained as a phenomenon of the spread effects of the Bombay industry. Two types of spread effects have made themselves felt in Thane belt as a consequence of industrialisation in Bombay. Firstly, new plants were required to be constructed, machinery and other equipment from ancillary industries were to be acquired; industrial raw material required for the Bombay industry were to be processed in its proximity. Acquisition of the entire range of inputs essential to the functioning of new industries obviously increased the demands on the economy. These demands of the Bombay industry were essentially to be met from the area in its proximity which received the initial stimuli of expansion. Secondly, the process of industrialisation in Bombay created and added potential for expansion in the neighbouring area by virtue of the income generated, the technological advancement and the skilled labour force. The established manufacturing enterprises in Bombay received fresh inducements to expand output, either by using existing capacity more fully or by extending their productive facilities. It was since Bombay city reached a stage of industrial saturation and the problem of space became intractable, that alternative space on the periphery of the metropolitan region was to be taken recourse to. It is in this sense that the Thane industrial belt is in fact a development axis of the Bombay metropolis. This industrial belt, which has the distinction of being the most prosperous development pole in Maharashtra, with the exception of Bombay city, has its epicentre in Bombay. To put it more precisely, the spectacular industrial growth in the Thane belt is the outcome of the transmission of the spread effects from the Bombay industrial complex.

The Bombay industries are spilling over to the mainland northwards and eastwards to towns in Thane district which are gradually being transformed from sleepy mediæval towns to new industrial centres.

A bulk of the finance, entrepreneurship, technical know-how and managerial skill from Bombay has contributed to the growth of industrialisation in the Thane-Kalyan-Belapur belt which has changed the face of this region beyond recognition. The traditionally backward agricultural tracts and marshy lands are now reverberating with a growing industrial sector. The towns in this region display a developed stage of urbanisation comparable to any other industrial townships in India. The proximity of Bombay has also lent an ultra-urban bias to the towns of Thane, Dombivli, Kalyan, Ulhasnagar, Ambarnath, etc. Thousands of persons from these towns are employed in Bombay city.

In fact, it is difficult to distinguish these towns from the Bombay suburbs as far as their industrial and urban characters are concerned. The growth of industry in these towns has created a very large class of industrial workers and managerial personnel.

The lack of skilled labour was never a barrier to industrial development in this area. Skilled labour and other personnel required for the industrial and tertiary sectors has poured in, and continues to pour in from Bombay and from the various parts of Maharashtra as well as of India. It is, however, ironical that only a fraction of the labour force hails from Thane district. Another bigger fraction of the labour force comes from Maharashtra, while a bulk of it is composed of the migrants from other States. Of the total Maharashtrian labour force in the Thane industries, a majority of workers come from Kulaba and Ratnagiri districts as well as from Nasik, Jalgaon, Dhule, Pune and Ahmadnagar districts. A majority of the migrants hail from Uttar Pradesh, Karnatak, Tamil Nadu, Kerala and Andhra Pradesh. While the problem of poverty and unemployment is as acute in the interiors of the district as in the most backward areas in the country, the rural peasant population has not stood upto the competition from the migrants as regards employment. In the nature of things, the rural population in the district is rooted to its native place and the ancestral home. In sum, the largest share of the benefits of industrial and tertiary employment in the district has gone to migrants, while the bulk of the local rural population is still in the midst of ancestral poverty and subsistence living standards.

The history of modern industry in Thane district dates back to the establishment of the Wadia Woollen Mills which was subsequently re-named as Raymond Mills. The lack of industrialisation in the past becomes obvious from the fact that there were only four mechanised factories in the district, including the Raymond Mills in 1921. As a matter of fact, the industrial development in the district gathered momentum only after the dawn of Independence. As explained earlier, the industrial growth of Thane could be explained in terms of the spread effect and diffusion of the development in the Bombay metropolis. Many of the industries in the Thane area are in the nature of ancillary and feeder industries of those in the neighbouring city. The establishment of industrial estates at Thane, Ulhasnagar, Ambarnath and Dombivli accelerated the process of industrialisation as they provided an infrastructure which encouraged the development of numerous industries. The entrepreneurial class from Bombay felt attracted towards this new field. These industrial estates provided facilities and preferential treatment which were hardly available in congested Bombay.

The implementation of the Government policy of dispersal and decentralisation of industries from Bombay is also important in the context of the study of industrialisation in Thane. Under the policy new industrial ventures are not granted licences in Bombay city, while those willing to shift to the Thane industrial area and other centres are granted incentive benefits. Even new plants of existing industries in Bombay are encouraged to shift to the Thane area. New industrial units in the various industrial areas in Thane district are also provided with facilities and incentive benefits as regards financial accommodation, raw material, plant and machinery and easy transport. This has increased the pace of industrialisation in Thane district.

The Thane industrial complex¹ includes modern industries such as, chemicals, drugs and medicines, synthetics, rayon, nylon and terene fibres, cotton and woollen textiles, rubber, radio-sets, electrical appliances, iron and steel goods, plastic industries, spare parts and machine tools. The trend of industrialisation in the district during the period 1961 to 1973 is given below²:—

Year	Number of registered working factories	Average number of workers
1961	493	31,161
1962	514	34,680
1963	534	39,303
1964	575	47,642
1966	720	67,931
1968	769	79,319
1969	825	88,947
1970	854	96,101
1971	965	1,07,084
1973	1,043	1,00,522

The Annual Survey of Industries of 1966 revealed that the 720 registered factories had together a productive capital of Rs. 1,57,84,38,000 and provided employment to 67,931 persons. The gross value of their output was Rs. 1,82,46,03,000, while the value added on manufacture stood at Rs. 52,74,38,000.

The above statistics reveal that the number of factories in the district increased by about 112 per cent, while the number of workers

¹ For details refer Chapter 5—Industries.

² Information supplied by the Directorate of Economics and Statistics, Maharashtra State, Bombay.

in the factories increased by about 223 per cent from 1961 to 1973. By any standard this growth in factories and employment over a short period of a decade is quite spectacular.

An important land-mark in the economic development of Thane district is the construction of the Thane creek bridge near Kharpada. This bridge has opened new and extensive avenues for industrial development in parts of Thane and Kulaba districts. It has brought the Belapur industrial area very much in proximity to Bombay city, and has reduced the distance from Bombay to Panvel by about twenty-five kilometres. This vital road link has thrown open immense opportunities for expansion of industrialisation of the Thane-Belapur area and will serve as an economic stimuli for expansion and diffusion of growth.

A special mention must be made of the atomic power project of the Government of India at Tarapur. This atomic power station, which is being operated as a commercial undertaking since November 1969, is a mile-stone in India's atomic energy programme. Tarapur is considered by experts to be one of the best sites for a nuclear power station. Being on the coast the plant can draw cooling water to the extent of 2,200 million litres per day, right off the sea. Besides, the site has a strong rock foundation, good meteorological and environmental conditions and, in the context of safety a low population density. In building this, the largest operating nuclear power station in Asia in 1974, Indian and American technicians and engineers have worked shoulder to shoulder on almost all aspects of the job.

Once an arid expanse of wasteland, the village of Tarapur now enjoys great national attention. It is the location for India's first nuclear power station which puts the country alongside other leading industrial nations which are harnessing nuclear power for the benefit of man. The immediate impact of the Tarapur power station has been the withdrawal of power cuts which had been imposed in the region. Tarapur has ushered the era of atomic power in the country and will help extension of rural electrification, bring in its wake greater use of pumps for irrigation and the resultant boost to agricultural production.

A student of economic development in Thane district however is faced with a paradox that the largest proportion of population in this industrially advanced district depends upon agriculture and allied activities. A larger area in the district is still economically backward, while the small industrial belt enjoys the fruits of modern industrial development. The industrial growth in the developed area did not lead to the diffusion of entrepreneurial activities in the rest of the district. Even the development of agro-industries, which is an evidence of the initial phase of industrialisation, has not found a beginning in

these areas. The bulk of the areas in the district have for long accommodated themselves to stagnation and fairly static socio-economic conditions.

The lack of industrialisation in the major part of the district can be attributed to a number of factors. It is sufficient to mention here that these areas are lacking in respect of the necessary infra-structure. They are not endowed with the advantages which are characteristic of the localisation of industries. One cannot fail to notice the fact that while the economy of the district is mainly agrarian in character, it does not provide agro-based raw materials required for development of industries.

AGRARIAN ECONOMY

The size of land-holding is extremely uneconomic which results in producing insufficient quantity of food-grains. These marginal as well as sub-marginal agriculturists always have to borrow food-grains or cash from merchants and money-lenders for their subsistence. An average cultivator is always financially hard up prior to and during the rainy season. His critical financial situation is exploited by the unscrupulous money-lenders and traders. He repays his debt after harvest with interest which generally ranges from 200 to 300 per cent for four months. Thus the harvest is pre-sold by way of a forward contract of sale of produce when harvested by a producer in favour of the buyer. This system is known as *Palemoti*.*

This system has its roots deeply embedded in the social and economic fabrics of the society. Prior to the introduction of land reforms the tribal was a virtual serf. The landlord used to extract hard work and gave him some subsistence wage. The land reforms made him the owner of the land which he was cultivating for many years as labourer. But this change did not improve his economic condition materially. His basic economic problem is poverty which arises not so much from any iniquitous social system, but mainly from technological backwardness which keeps his productivity very low.

The tillage of the hill tribes in the past was the forest clearing system locally called *dahli*. Under this system the tribals used to clear space in the forest, cut and burn the trees and bushes, and raise a crop of *nachani*. Without resorting to ploughing, the seed was broadcast in the ashes and the grain was left to grow and ripen uncared for. Weeding was neglected. The value of rotation of crops was not recognised, and improvements were virtually unknown. Everything

*Report on the evaluation of the scheme of Eradication of *Palemoti* system in Thane District, by Tribal Research Institute, Directorate of Social Welfare, Pune.

was left to soil and climate. Cultivation was merely a secondary means of livelihood, and agricultural produce simply served to supplement the food-supply forthcoming from the forest.

The agricultural situation of Thane district to-day gives legitimate cause for serious apprehension despite the efforts and achievements under the five-year plans. The process of fragmentation and subdivision of lands has been aggravated by an increasing population. There is a large number of cultivators barely eking out a living by the cultivation of uneconomic holdings, compelled to incur debts with very little prospect of getting freed from the burden.

It is gratifying to note that a section of progressive cultivators in the district has adopted improved seeds and fertilizers. Though there remains much to be done in the matter of agrarian rejuvenation, the enlightenment among the agriculturist coupled with the persuasive influence of progressive measures by the Government is also instrumental in reducing the indifference on the part of the average cultivator. Now, there is a general realization that progressive method of cultivation is the only alternative to backward agriculture.

It is worthy to note here the increasing efforts of the Government towards the development of agriculture which are directed towards an increase in the yield of crops, and to the extension of cultivation of cash crops of marketable value. The importance of animal husbandry is increasingly recognised. The implementation of the Dapchari Dairy Project which is estimated to cost about Rs. 6.62 crores is an illustration. There is like-wise an increasing recognition of the need for forest conservation. An active interest is being taken in fruit and horticultural development and poultry produce in the interior of Thane district.

The State Government deserves credit for initiating various schemes for improving agrarian techniques. A number of officials have been appointed who are charged with the responsibilities of agro-economic research and propagation work. They are engaged in the activities for improvement in the various spheres of the science of agriculture. These officials include agricultural development officer, soil chemist, pest control officer, soil conservation officer, paddy development officer, and many others. The executive machinery of the Zilla Parishad and the Agriculture Department co-ordinates the activities of these officials. With the advancement of agro-economic techniques and practical experience in the years to come, it is hoped that this limited organisation dealing with agricultural development and reconstruction will develop in coverage and effectiveness.

Agro-economic planning which made a modest beginning about twenty years ago ushered in a new era giving birth to new attitudes

towards improvement of the agricultural economy. An important landmark in this respect was the establishment of the agricultural research and extension institute at Kosbad which has done pioneering work in agricultural research and extension and in propagation of the Japanese method of paddy cultivation. The institute evolved high-yielding varieties of paddy appropriate to the conditions in the district, viz. *Taichung*, *I.R.S.* and *Bluebela*, which have increased the unit-yield by about 250 per cent. Besides, the institute demonstrated the efficacy of the improved cultural practices in the district. The Government as well as co-operative societies also encouraged cultivation of the twenty-five improved varieties by granting special loans and inputs for the same. All these factors resulted in an increase in the area under improved paddy cultivation, viz., from 31,905 hectares in 1961 to 80,539 hectares in 1971,* and 1,36,444 hectares in 1972-73.

Under the scheme of Small Farmers Development Agency initiated in 1970 the small holders are granted liberal credit facilities for land improvement, irrigation, horticulture, dairy and poultry. The scheme is oriented towards providing complementary sources of livelihood to the poor peasants.

The agrarian development programme, popularly styled as the "green revolution," is one of the most enthusiastically sponsored development programmes in this district as in the entire State. A number of measures have been adopted as a part of bringing about this revolution. These measures include propagation of hybrid and improved strains of seeds, manuring, scientific rotation of crops, pest control, better cultural practices and expansion of irrigation schemes. A considerable organisational set-up from the State level to the block level has been established for the implementation of this programme.

The study of the pattern of land utilisation is very important from the functional point of view since it throws a light on the manner in which scarce land is utilised for productive purposes. The trend of land utilisation in Thane district since 1938-39 is quite illustrative and conspicuous. The culturable waste land in the district increased from 1,654 hectares in 1938-39 to 6,948 hectares in 1948-49, 15,957 hectares in 1957-58 and 1,02,064 hectares in 1967-68. This trend is obviously unfavourable from the point of view of increasing agricultural production, to meet the rising demand from multiplying population. It, however, points out to the feasibility of bringing more and more land under active cultivation probably by reclamation of waste land. As

*The total area under cultivation was about 1,50,000 hectares, of which about 55 per cent. was under improved paddy cultivation.

समाजवादाच्या वाटेवर—प्रसिद्धी संचालनालय, महाराष्ट्र शासन (१९७२).

a result of such measures, the area under culturable waste land decreased to 54,031 hectares in 1973-74. Fallow lands which remain uncultivated mainly because of apathetic nature and poverty of the agriculturists increased from 1,77,228 hectares in 1938-39 to 2,20,811 hectares in 1948-49. However, they registered a declining trend with 1,37,619 hectares of fallow lands in 1957-58, 1,12,120 hectares in 1967-68 and 46,358 hectares in 1973-74. The expansive area under culturable waste and fallow lands leaves vast scope for extensive cultivation to meet the growing hunger for land. These lands which are mainly in the areas inhabited by *adivasi* population will add to the productive potential of the agrarian economy of Thane district.

An important side-light on the agrarian structure of the district is the progressively rising trend in the net area sown and the area sown more than once upto 1967-68 and a sudden decline in 1972-73 and 1973-74 which is revealed by the below mentioned statistics :—

Year		Net area sown (hectares)	Area sown more than once (hectares)
1938-39	...	28,680	3,359
1948-49	...	2,71,047	2,149
1957-58	...	3,04,564	5,508
1967-68	...	2,97,918	7,290
1972-73	...	2,06,048	3,576
1973-74	...	2,03,115	4,313

This however does not show a consistent trend and it becomes obvious that the double cropped area was only 2.30 per cent of the net-cropped area in 1967-68 and 2.12 per cent in 1973-74. This percentage speaks for the backwardness of the agrarian economy, and can be attributed to the meagre irrigation facilities in the district. The pressure of population demands that the vast fallow and waste lands should be brought under cultivation so as to accelerate the increase in the net area sown. This would require planned efforts and imaginative investments by the concerned authorities.

It is interesting to study the trend of cultivation of different crops since 1880-81 which is revealed by the statistics given below :—

(Area in hectares)					
Year		Total food-crops	Total non- food-crops	Rice	Nachni
(1)		(2)	(3)	(4)	(5)
1880-81	..	2,08,645	10,672	1,39,312	32,455
1890-91	..	2,05,277	10,823	1,36,373	29,286
1900-01	..	1,70,776	7,202	1,20,208	21,898

(1)		(2)	(3)	(4)	(5)
1910-11	.. ..	1,76,427	4,596	1,29,972	21,115
1920-21	.. ..	1,62,881	2,090	1,22,471	18,918
1940-41	.. ..	1,75,936	86,858	1,39,233	17,097
1950-51	.. ..	2,04,728	91,895	1,50,215	22,923
1960-61	.. ..	2,09,993	9,03,556	1,49,891	26,244
1970-71	.. ..	1,96,893	1,04,884	1,41,540	21,068
1972-73	.. ..	1,86,399	23,225	1,36,444	19,980
1973-74	.. ..	1,84,896	22,532	1,37,508	18,513

The above statistics which cover a period of over ninety years reveal that there was very little change in the total area under food-crops. The total area under non-food crops, however, registered a very steep increase in 1940-41 and showed a progressively rising trend from 1940-41 to 1960-61 but showed a considerable decline in 1970-71 and recorded a revival in 1972-73 and 1973-74. Rice, the most important staple crop of the district, remained almost constant throughout the period under study except the incidental fall in 1900-01. It may be observed that the virtual stagnancy in the area under rice explains the conservative nature of the agrarian economy of Thane. As a matter of fact, rice is the crucial crop upon which depends the economic well-being of the agriculturist. However he lacks in the initiative to bring more and more land under this comparatively more lucrative crop. The area under *nachni*, another important food-crop, did not show a consistent trend during the period under study.

The out-turn of rice was 1,53,054 metric tonnes in 1938-39 and 1,53,166 metric tonnes in 1948-49, but recorded a steep rise to 2,36,423 metric tonnes in 1957-58 and to 2,51,460 metric tonnes in 1967-68. The rise in 1957-58 and 1967-68 was not because of the rise in the area under rice but might be due to increase in productivity of existing area due to good harvest. The out-turn of rice however, declined to 1,90,398 metric tonnes in 1968-69 and to 1,00,100 metric tonnes in 1972-73 due to adverse harvest conditions. While the traditional varieties of paddy were affected by the stem borer pest, the high-yielding *Taichung Native* variety was affected by bacterial blight. The trend of out-turn of *nachni* was as under :—12,662 metric tonnes in 1938-39, 12,304 metric tonnes in 1948-49, 15,240 in 1957-58, 28,956 in 1967-68 and 28,143 metric tonnes in 1968-69.

The unit-yield of crops is a measure of both agricultural efficiency and production technique within the limitations of the soil and climatic factors. But the rate of yield per hectare did not show

a conspicuous increase over the period 1961 to 1972-73 as can be seen from the following statement :—

YIELD PER HECTARE IN KILOGRAMS

	1961	1963-64	1965-66	1967-68	1968-69	1972-73
Rice	1,597	1,685	1,156	2,039	1,312	727
Total cereals	1,413	1,459	1,060	1,567	1,141	668
Total pulses	277	252	254	282	303	252
Total food-grains	N.A.	N.A.	N.A.	1,480	1,090	N.A.

N.A. = Not available.

IRRIGATION

The topography of Thane district is not suitable to the establishment of major irrigation projects. Probably this, coupled with the virtually assured monsoons, did not encourage the establishment of irrigation projects in the district in the past. Another factor for the absence of any major irrigation project is that the alien Government before Independence judged projects by their revenue-earning capacity rather than by their protective and developmental value. Even after Independence also no major irrigation project was undertaken except the Bhatsa and Surya river projects which were taken up in hand around 1973-74. A good deal has however been done in increasing the number of wells and the area benefited by them.

The following statistics throw a light on the state of irrigation in this district during the last over 80 years :—

Year	Area in hectares	Year	Area in hectares
1890-91	2,081	1950-51	4,010
1900-01	1,270	1960-61	4,172
1910-11	1,886	1968-69	4,103
1921-22	2,445	1972-73	6,421
1940-41	2,935		

During the decade 1960-61 to 1970-71 as many as 989 new irrigation wells were constructed which increased the number of wells in the district to 7,482. Besides, 39 *bandharas*, four tanks and sixteen lift irrigation works were added during the decade. In 1972-73, the total number of irrigation wells was 13,471, of which only 6,477 were in use. The area under irrigation which was only 3,560 hectares on the eve of the first five-year plan, increased to 9,042 hectares in 1971* but decreased to 6,421 hectares in 1972-73.

* समाजवादाच्या वाटेवर—प्रसिद्धी संचालनालय, महाराष्ट्र राज्य (१९७२).

It must be admitted that though the progress of irrigation is not satisfactory, it is encouraging. Looking to the limitations of the circumstances and the inherent difficulty of rapidly expanding irrigation facilities, the doubling of irrigated area in such a short time should be regarded as satisfactory.

The Bhatsa and Surya river projects which are under construction are expected to be completed around 1979-80. The Bhatsa project estimated to cost about Rs. 1,633.74 lakhs (first stage) commands a culturable area of about 7,004 hectares and has an irrigation potential of about 5,900 hectares. The Surya project estimated to cost about Rs. 1,891 lakhs has an irrigation potential of about 12,676 hectares of land.†

In view of the limited prospects of major irrigation projects in the district in the near future efforts are required to be directed towards better use of rain-water so as to achieve greater yields.

Soil preservation against erosion and contour bunding are essential measures of achieving this objective. It will achieve the double purpose of preserving soil humidity and preventing soil erosion arising out of rapid flow of water during the monsoon.

LAND REFORMS

On the eve of Independence, the agricultural land rights in Thane district presented a bewildering complexity. Each tenure differed from the rest, the essence of the difference lying invariably in the legal right of the superior holder. The influence and impact of tenures of land management was uniformly adverse, varying only in degrees. From the point of view of their implications on the rural economy it can be surmized that they share to some extent the blame for the economic backwardness of agriculture.

The progressive land reforms legislation in the post-Independence period has, however, opened a new chapter. Though there are some features of the legislation which admit of some criticism, by and large, the change brought about by it is progressive, and it can be said without hesitation that it has helped the emancipation of the "tenant at will" and the *adiwasi* farmers. The peasant attached to the soil, struggling with the uncertainties of rainfall and climate, can now feel secure about his rights in the land, and can utilise his energies and resources for improvements in the land. This has been particularly beneficial to the *adiwasi* farmers who are about 53 per cent of the total agricultural population in the district. Under progressive land reforms legislation,

†For details refer to section on Economic Planning in this Chapter.

98,455 tenants in the district obtained ownership rights in 1,68,000 hectares of land upto 1971.*

The introduction of economic planning is by far the most important landmark in the economic history of Thane as in the other parts of the country. The economy of the district which was almost stagnant on the eve of Independence became development-oriented with the implementation of five-year plans. Development of the economy became the principal objective of the planning authorities. After the establishment of the *Panchayat Raj* institutions (1961-62) with the avowed goal of decentralisation of democratic institutions and greater participation of the masses in the entire development effort, the pace of development gathered momentum.

ECONOMIC PLANNING

Agriculture has always enjoyed a high priority in economic planning, and the emphasis on irrigation, improved practices, community development and co-operation has marked all the five-year plans. However, the progress in agricultural production, as has been admitted by the planning authorities, was unsatisfactory during the first three plans. A number of factors have changed the situation during the recent years. Successful research in plant breeding using foreign genetic material has given birth to high-yielding varieties of cereal seeds. With the new awareness of the importance of intensive cultivation, there has been much greater demand and increasing use of chemical fertilisers, insecticides and other inputs. Higher prices have made the farmer readily receptive to new practices and inputs. The possibility of an upward surge in agricultural production seems to be in the offing.

In industry the notable features have been the continuous increase and diversification of production capacity which has increased immensely in the Thane industrial belt. Gains have been registered in many important fields. Increase in capacity has been most notable in production of textiles, a wide range of machine tools, industrial machinery, electrical and transport equipment, drugs and pharmaceuticals, petroleum products, chemicals and a variety of consumer goods. All this has contributed to the strengthening of the industrial structure, and a valuable potential for future has been created in the Thane industrial belt.

The community development programme which was initially considered as the main instrument of rural transformation was found

*समाजवादाच्या वाटेवर—प्रसिद्धी संचालनालय, महाराष्ट्र राज्य (१९७२).

to be too official-oriented, and the emphasis was therefore shifted to the programme through *Panchayat Raj* institutions. They are now vested with powers which enable them to participate in the formulation of district plans and make them responsible for implementing local programmes and schemes. They play a vital part in planned development. With the shift in emphasis to district and local planning their importance has increased. These institutions are associated with district planning, and their association with planning is all the more important as they reflect the preferences of the people.

Review of expenditure and achievements: Planning at the district level is implemented through schemes in the State sector and the Local sector. The expenditure is shown separately for the two sectors though there is a good deal of co-ordination between the two sectors as well as the schemes in the two sectors. Table No. 1 gives the statistics of expenditure on the plan schemes in the State sector and the Local sector during the Third Five-Year Plan (1961-66) and the Annual Plans for 1966-67, 1967-68, and 1968-69.

The outlay of the district level schemes under the Third Plan of the district was of the order of Rs. 6.96 crores. During the Annual Plans the financial allocation in the district was as under :—1966-67, Rs. 2.70 crores ; 1967-68, Rs. 1.66 crores ; 1968-69, Rs. 2.32 crores ; 1969-70, Rs. 2.07 crores and 1970-71, Rs. 2.54 crores. The *per capita* expenditure on district level plan schemes was Rs. 14 and Rs. 12 during 1968-69 and 1969-70, respectively*.

In the nature of things, agriculture was accorded the highest priority during the Third Five-Year Plan and the subsequent Annual Plans of the district. It accounted for 26.63 per cent of the total expenditure in the Third Plan, while the corresponding percentage during the Annual Plans registered a progressively rising trend, viz., 27.08 in 1966-67, 42.07 in 1968-69 and 38.61 in 1969-70.

Table No. 3 gives the statistics of physical achievements under various heads of development in the district during the Third Five-Year Plan and the subsequent Annual Plans of 1966-67, 1967-68 and 1968-69.

Table No. 2 shows the targets and achievements of the Fourth Five-Year Plan while Table No. 4 gives the outlay, targets and achievements of the Fifth Five-Year Plan in the district.

Table No. 5 gives the statistics which show the trends in selected indicators of economic development in Thane district.

**Socio-Economic Review and District Statistical Abstract, Thane District*, Bureau of Economics and Statistics, 1968-69 and 1969-70.

The major development projects in the district are the Thane creek bridge near Kharpada, the Dapchari Milk Scheme, the Bhatsa irrigation project, the Surya river project and the Tarapur Atomic Power Station. These prestigious projects promise considerable improvement in the general economic life in the district. Particularly, the Dapachari Milk Project will provide employment and a subsidiary means of livelihood to a large number of persons.

Fifth Five-Year Plan and District Planning: As per the guidelines by the Planning Commission of India the Maharashtra Government accepted the strategy of district planning for the rational utilisation of resources, reduction of intra-State economic imbalances as well as proper co-ordination and implementation of development programmes.

The Planning Commission had desired that a beginning be made by disaggregating the State programme outlays, targets and plan resources in terms of individual districts. A beginning was made by the Maharashtra Government in right earnest by establishing a State Planning Board at the State level and District Planning Boards at district levels.

Accordingly a detailed development plan for Thane district has been formulated on the basis of an exhaustive study of the district economy. For formulation of the District Plan, the District Planning Board was given latitude to suggest continuance of old spill-over schemes in the Annual Plan for 1973-74 and to modify the existing schemes or to suggest new ones keeping in view the availability of natural resources and local conditions in the district. The District Planning Board also suggested schemes to be included in the State level and the Centrally-sponsored schemes.

An amount of Rs. 54.74 crores was allocated for the Thane District Plan in the Fifth Five-Year Plan. The annual allocation under the District Plan is determined by the State Planning Board on the basis of the proposals of District Planning Board for the respective years. The allocation varies from year to year depending upon exigencies.

The criteria for determination of plan allocations include, among other factors, population, agricultural backwardness, road and railway length per square mile and per lakh of population, irrigation facilities, industrial growth, drought-prone areas, forest, scheduled caste and scheduled tribe population, etc. While formulating the plan proposals the District Planning Board gave a due weightage to all the above factors.

In order to ensure scientific and need-based planning, the District Planning Board grouped the various schemes in the Fifth Five-Year Plan in four sectors and indicated the percentage allocations for the

four sectors, as per guide-lines of State Department of Planning, as under :—

Development Sector	Percentage of district allocation
Group I—Agricultural programme, co-operation and community development.	24
Group II—Irrigation and power	29.30
Group III—Industry, mining, transport and communications, employment and miscellaneous schemes.	17.30
Group IV—Social services	29.40

The planning authorities visualised that the outlay for the Fifth Plan of Thane district would be supplemented by the finances forthcoming from the nationalised banks, district central co-operative bank, other financial institutions as also from the Zilla Parishad, Panchayat Samitis and other local bodies in the district. The authorities also visualised mobilisation of private investments in the development plan of the district.

Objectives of planning : The major objectives set out in the Approach to the Plan are removal of poverty and self-reliance. The main elements of the Fifth Plan for realisation of these objectives are : (1) expansion of productive employment opportunities ; (2) national programme for minimum needs, covering elementary education, drinking water, medical care in rural areas, nutrition, house-sites for landless labourers, rural roads, rural electrification and slum improvement ; (3) extended programme of social welfare ; and (4) emphasis on agriculture, key and basic industries producing goods for mass consumption, reduction of social and economic imbalances, etc.

Plan outlay : The targetted resources for the Fifth Plan schemes in the district are estimated as under :—

	Rupees in crores
1. District Plan Outlay	54.74
2. Outlay for State sector schemes in the district.	25.33
3. Outlay for Central sector schemes in the district.	19.22
4. Institutional finance	40.81
Total outlay ...	140.10

It is interesting to note here that the anticipated *per capita* expenditure on district level schemes in the Fourth Plan of the district

(1969-1974) was only Rs. 66.74, while corresponding expenditure in the Fifth Plan is targetted to increase to Rs. 239.91*. The anticipated *per capita* gross outlay including that on District level, State sector, Central sector and institutional finance is estimated at Rs. 613.94 for the district.

The following statement gives the allotment of District Plan Outlay for the various sectors of the district economy in the Fifth Five-Year Plan juxtaposed with the expenditure in the Fourth Plan, the actual expenditure in the first year of the Fifth Plan (1974-75) and the plan provision in the second and third years of the Plan (1975-76 and 1976-77).

**DISTRICT PLAN OUTLAY FOR THE VARIOUS SECTORS OF THE
ECONOMY OF THANE**

(Rs. in lakhs)					
Development Sector	Expenditure during Fourth Plan	District Plan Outlay in Fifth Plan (1974-75)	Expenditure in 1974-75	Financial provision in	
(1)	(2)	(3)	(4)	1975-76	1976-77
				(5)	(6)
(I) Agricultural programme, co-operation and community development.	443.49	1,318.20	256.61	226.46	201.93
(II) Irrigation and power ..	12.10	1,600.00	89.01	196.06	65.00
(III) Industry, mining, transport and communications, and miscellaneous including employment guarantee.	251.74	934.55	120.04	238.87	192.19
(IV) Social services ..	550.69	1,621.25	90.83	200.64	327.88
Total ..	1,258.02	5,474.00	556.49	862.03	787.00

Agriculture and irrigation have been accorded the highest priority, the emphasis being on propagation of improved seeds and scientific methods of cultivation and expansion of irrigation facilities. The planning authorities appear to have given a special attention to the socio-economic development programme for the tribal people who form not only a large section of the population but also have peculiar problems. The integrated area development programme also deserves a special mention as it aims at the economic development of the small farmer by granting him loans and subsidy for various agricultural and allied activities which can assure him a better economic life.

*It may however be noted that the schemes involving large capital outlays like major and medium irrigation projects which were included as State level schemes in the Fourth Plan are now included as District level schemes in the Fifth Plan. Hence the wide disparity in the *per capita* expenditure in the two plans.

In view of the lack of irrigation facilities in the district, the construction of the Surya and Bhatsa irrigation projects is one of the most important landmarks in the planned development in the district. The Surya project estimated to cost about 18.91 crores was started in the Fourth Plan, and it has been accorded a high priority in the Fifth Plan by allocating an outlay of Rs. 10 crores. This is a hydro-electric project with the generation capacity of 5,000 kW. and an irrigation potential of 12,676 hectares. The left bank canal has a planned length of thirty-two kilometres and the right bank canal of thirty-three kilometres. About 68 villages in Palghar, Dahanu and Jawhar talukas are to be benefited by the irrigation facilities provided by this project. The Bhatsa project which is mainly meant for water-supply to Bombay will afford irrigation facilities to 5,900 hectares of land in Shahapur and Kalyan talukas. An amount of Rs. 3.84 crores has been provided for canals from the Bhatsa dam in the Fifth Plan. Besides these two main projects, an outlay of Rs. 2.16 crores has been earmarked for new projects including the Kalu, the Pinjal and the Wandri river projects. Minor irrigation schemes have been accorded an honoured place in the Fifth Plan, the physical target for irrigation being 11,660 hectares of land. The Dapachari Milk Scheme has an important bearing on enriching the economy of the surrounding areas populated by tribals. It will provide a source of livelihood to thousands of *adivasis* and subsidiary means of earning to small land-holders and landless labourers.

The imaginativeness of the planning authorities in the district is quite obvious from the priorities to need-based schemes as exhibited in the percentage of expenditure on the various sectors of the economy. The percentages of expenditure in the Fifth Plan and the three annual plans of the district are given below :—

Development Sector (1)	Fifth Plan (2)	Expendi- ture in 1974-75 (3)	Provision in	
			1975-76 (4)	1976-77 (5)
1. Agricultural programme, co-operation and community development.	24.08	46.11	26.35	25.6
2. Irrigation and power	29.23	16.00	22.70	8.3
3. Industry, mining, transport and communications and miscellaneous including employment guarantee.	17.08	21.57	27.70	24.4
4. Social services	29.61	16.32	23.25	41.7

The District Plan (Fifth Plan) has also laid emphasis on the programmes known as Minimum Need Programme, Fifteen Point

Programme, Welfare of Tribal Area and the Twenty Point Programme. These programmes are aimed at ameliorating the weaker sections of society and at initiating a self-propelling development of the economy.

CO-OPERATIVE MOVEMENT

Growth and propagation of the co-operative movement have always received the attention of the Government, and encouraging results have been obtained in the district. Though their benefits have not yet reached the poor peasantry in a large measure, the co-operatives have been instrumental in freeing the middle peasant from the money-lender. Co-operative banking and credit already play a significant role in the rural economy of the district. Co-operative processing has contributed substantially to the growth of agro-industries, while the co-operative marketing societies have proved an important agency in implementing government's food policy in recent years.

The co-operative movement has played an important role in the fields of agricultural credit, supply of agricultural inputs and disposal of farm-produce. As a matter of fact, co-operative institutions are most suitable for purveying short and medium term finance to the agriculturist but for which he would not come out of the squalid conditions of living.

The co-operative sector* in the district had under its fold 1,986 co-operative societies in 1973-74 which catered to the needs of the people. Of 685 agricultural credit societies, 566 were primary agricultural credit societies, 118 grain banks, a District Central Co-operative Bank and a Land Development Bank. There were 167 non-agricultural credit societies including 22 urban credit societies, 27 salary-earner's societies, and 118 factory workers' societies. The agricultural non-credit societies which were 215 in 1973-74 were distributed as under :— agricultural marketing societies 14, fisheries 38, animal husbandry 65, farming 32, agricultural processing 19, and other agricultural non-credit societies 39. During the same year there were 919 non-agricultural non-credit societies which included two spinning mills, five weavers' societies, 97 other industrial societies, 75 consumer stores, 564 housing societies and 177 other non-agricultural non-credit societies.

It is, however, a matter of observation that the growth of the co-operative movement in Thane district is not so very impressive as compared to that in other districts of western Maharashtra. One of the reasons for the slow growth of the movement is the lack of a good cadre of co-operative workers. The movement also suffers from a number of structural defects.

*For details refer to the section on Co-operative Movement in Chapter 6 above.

PRICE TRENDS

The earliest statistics of prices in Thane district pertains to the period beginning with 1836. These statistics furnished in the former edition of the *Thana District Gazetteer* of 1882, bring home a number of interesting facts about the state of economic living in the old days. The prices of commodities were unbelievably low in those days. The low level of prices was however the phenomenal result of the low level of incomes and *vice versa*. The narration of price trends in the district is presented below in this perspective. The information regarding prices in the district for the period 1836 to 1880, as published in the former edition of the *Thana District Gazetteer*, is given below :—

THANE GRAIN PRICES, IN POUNDS FOR THE RUPEE, 1836-1880¹

Produce	First Period				Second Period			Fourth Period		Fifth Period	
	1836	1840	1845	1850	1855	1860	1865	1870	1875	1880	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Millet	48	41	20	28	33	31
Wheat	..	37½	47½	49	..	32½	32	16	22	22	26
Rice	..	38	42	39½	..	29½	28	16	26	14	16½
Pulse	28	22	12	16	18	22

¹These price figures are compiled from a report on high prices in the Bombay Presidency (1864) from a special statement received from the Collector, and from the Table of Food Prices (1863-1874) compiled in the Bombay Secretariat. There is so much difference between these returns that the figures in the text are little more than estimates.

The statistics of prices at the district headquarters for the period between 1912 and 1921 as furnished in the Supplementary to the *Thana District Gazetteer* are given below :—

PRICES IN SEERS (80 TOLAS) PER RUPEE
(AT DISTRICT HEADQUARTERS)

Year	Wheat	Rice	Bajri	Gram	Salt
1912	.. 8	8	10	10	23
1913	.. 9	7	9	11	23
1914	.. 9	7	10	10	21
1915	.. 8	9	10	8	22
1916	.. 9	7	10	9	24
1917	.. 7	6	9	9	14
1918	.. 4	5	4	6	9
1919	.. 4	5	4	4	13
1920	.. 4	4	6	5	15
1921	.. 3	4	4	5	16

The average retail prices in some selected years, at Thane, are given in table No. 6.

After the end of the World War I the prices of almost all commodities saw a declining trend. This phenomenon of declining prices was quite in consonance with the milder depression in the international commodity markets. It may, however, be noted that the revival of prices in the international markets from 1921 onwards did not find a response in Thane district. The Land Revenue Administration Reports of the Bombay Presidency* furnish evidence that the condition of depression in trade continued in the district throughout 1924-25 and 1925-26. The trade in timber and bricks which were the principal items of trade was very dull owing to less building activity in these two years. The Raymond Woollen Mills (then called Wadia Mill) which was the first mechanised and large-scale factory in the district went into liquidation and closed in 1924-25.¹ This had an adverse effect on the employment situation in the year. Owing to the general slump in the market in 1926-27, many of the industries and trade in timber and charcoal did not flourish. There was a fall in the prices of rice, charcoal, timber, fuel and grass in the year 1926-27 as well as in 1927-28 and 1928-29. The prices of almost all agricultural produce in the district declined further on account of favourable crop conditions and the general depression in trade in the international market. The Great Depression of 1929-30 had a very adverse effect on the handloom industry of Bhiwandi² and the Raymond Mills which was closed in 1930-31. There was a noticeable decrease in prices of principal food-grains on account of general depression in 1930-31³, while the wages of skilled as well as unskilled labourers experienced a slight decline. The industry⁴ in Thane received a set-back in 1931-32 on account of the riots in Bombay and the general depression in trade all over the country. There was, however, no appreciable rise or fall in wages, though the wage-rates of skilled workers declined slightly. The

*The narration of the conditions of prices, trade and industry from 1924 to 1947 is based on the information about the district from the Land Revenue District Administration Reports of Bombay Presidency.

¹It was started again in 1925-26 and changed hands under the name Raymond Woollen Mills.

²The number of handlooms at Bhiwandi declined from 3,000 to 2,000 in 1930-31.

³It, however, started working in 1931-32.

⁴The principal industries in the district were :-

- (i) Raymond Woollen Mills,
- (ii) Iron workshop at Bhiwandi manufacturing machinery and accessories for rice mills,
- (iii) Four iron workshops at Dahanu,
- (iv) Woollen carpet factory at Shahapur,
- (v) Match factory at Thane,
- (vi) Bone mills at Thane and Kelva, one each,
- (vii) Three ice factories at Thane, and
- (viii) Handlooms at Bhiwandi.

prices of principal food-grains showed a downward tendency throughout 1931-32 and 1932-33. The general condition of both skilled and unskilled labourers was satisfactory in 1932-33.

Prices continued to be low in 1933-34 and there was no appreciable change in them, while wages remained stationary and the economic condition of the working classes was generally satisfactory. The year 1934-35 was on the whole unsatisfactory and witnessed no improvement in trade or industry in the district. In contrast, however, there were no signs of unemployment in the district, while wages remained almost stationary.

The process of stagnation in trade and industry and depression in prices was, however, reverted in 1936-37. Ultimately, the prices of most of the goods started responding to the world conditions and showed an upward trend in 1937-38, and a rise in prices of rice, *nagli* and building material. The year 1938-39 again brought a trail of downward prices of all commodities with the exception of rice. This situation might be due to peculiar circumstances in the district, which are not known.

The behaviour of prices, in general, in the district during the World War of 1939-1945 was almost in harmony with that in the country as a whole. In the nature of things, prices of all manufactured articles and agricultural commodities rose to unprecedented high levels, during this period. As in the case of any war economy, the prices of manufactured articles rose more steeply than those of agricultural produce in the district.

The prices of food-grains showed an upward trend in 1939-40 due to war conditions and the shortage of rainfall. The Land Revenue Administration Report further added that the economic condition of the people on the whole was satisfactory in 1940-41 though the prices went on rising due to war conditions. The trend of rising prices continued to be so throughout the war period. The rise in prices was however brought under control by the Government in 1944-45. The condition of agriculturists on the whole was satisfactory in 1944-45 as they got the benefit of rising prices for their produce and as the condition of crops was good in the year. The other side of the picture was, however, evident in 1945-46. Although agriculturists got better prices for their agricultural products, correspondingly high prices of other necessities of life prevailed, and the net gain to the agriculturists was not substantial. The season of 1946-47 was quite normal, and the economic conditions prevailing in the previous year held good in that year too.

Prior to the beginning of the Korean war prices were stable. The out-break of war in June 1950 caused a great upsurge in prices. Though the prices of food-grains did not rise much, those of industrial raw materials and manufactured goods as well as miscellaneous articles rose

considerably. The rising prices were mainly because of the international conditions and the rise in demand on account of a rush for stock-piling of essential goods. There was a gradual decline in prices after the end of the Korean war in the middle of 1951, which was halted after March 1952. The prices in 1952-53 were relatively free from fluctuations. During 1953-54 also, prices remained fairly steady and recorded only a marginal rise. This period of relative steadiness in prices was followed again by a resumption of the downward trend in 1954-55. As a matter of fact, the price level in March 1955 was lower than that in March 1952. The beginning of 1956, however, witnessed a reversion of the downward trend and was in fact a prologue to the phenomenon of rising prices in the subsequent years.

An interesting feature of the price situation during the Second Five-Year Plan was the preponderance of food prices in the rise of the general price index upto 1959. The share of food prices in the general price level was the highest, while industrial raw materials and manufactures came next. It was after 1959-60 that industrial raw materials and manufactures contributed more and more to the general level of prices. The preponderance of food prices can be easily explained by the high income elasticity of demand for food, the typical case in an under-developed economy.*

The consumer price index numbers which are indicative of the price situation over a particular time period are not worked out for any place in Thane district. However, the index numbers worked out for Greater Bombay which is the neighbouring city may furnish a key to the understanding of the prices in Thane district. Hence the consumer price index numbers for Greater Bombay, with 1960 as the base year, are given below for 1969-70, 1970-71, 1972-73 and 1973-74 :—

CONSUMER PRICE INDEX NUMBERS

(1960 : Base year)

Commodity Group (1)	Year			
	1969-70 (2)	1970-71 (3)	1972-73 (4)	1973-74 (5)
(1) Food	192	199	219	261
(2) Pan, Supari and tobacco ..	181	191	223	238
(3) Fuel and light	175	179	205	227
(4) Housing	108	112	117	119
(5) Clothing and foot-wear ..	152	161	195	224
(6) Miscellaneous	151	156	173	182
General Index	175	182	203	233

* *Money Supply and Prices in India Since Independence*, by P. K. Mukherjee, p. 65.

The abnormal behaviour of prices in this district as all over the country assumed serious proportions after the Indo-Pakistan War of September 1965. The national economy had to bear an ostensible strain of the war which increased the burden of rising prices. Besides, there was a drought in the State in 1965-66 which aggravated the problem further. The price situation deteriorated further on account of speculative hoarding. The oppressive conditions started in 1965-66 continued throughout 1966-67 with little relief. It is common knowledge that the national price situation had become adverse after April 1967. These conditions were experienced conspicuously in this district too. Almost all consumer goods became very dear. The consumer had to offer exorbitant prices for most of the commodities including sugar, *gul*, wheat, rice and cloth.

The consumer experienced the pinch of the market conditions and saw no relief. These conditions continued up to 1974-75 with the exception of short-lived relief from the rising trend. The Government on its part intervened by imposing informal rationing and restrictions on the movement of goods such as rice, *nagli*, *jowar*, wheat and sugar. Unfortunately however, the net effect of these measures on the general level of prices was only partial. In fact, the oppressive nature of prices cast an ominous shadow on the economic situation, and all measures were lost in the vortex of a struggle for existence. Government measures coupled with a good harvest throughout the major part of the country in the 1975-76 season led to slight decline in prices of agricultural produce and agro-based manufactured articles. This did have a good effect on the market situation.

WAGE TRENDS

The growth of the class of landless labourers in this district may be accounted for by the systems of land tenures in the past, by the increase of absentee landlords, by the deteriorating man-land ratio, and by the displacement of village crafts and industries due to the spread and use of machine-made products. The fractionalisation of land very often compels the cultivator to supplement his meagre earnings by working on the farms of others. One of the factors which has contributed to the growth of the class of landless labourers in this district is the economic transition through which the tribal population has been passing. Many of them sought refuge in jungles and foot-hills. With the rejection of a share in the forests produce to them under the system of reserved forests the tribals were driven to join the class of landless labourers. The limited number of tribals who were given proprietary rights in land lost them as money-lenders and traders exploited the ignorance and improvidence of these

primitive people. Most of them were consequently converted from tenants into landless labourers.

The average tribal is not infrequently compelled in times of stress to mortgage his personal liberty. In return for a small sum of money, he agrees to serve the man from whom he has borrowed. For his work, he merely receives an inadequate dole of food. A pernicious system known as the '*Hali*' system was prevalent in parts of Thane district in the past. Under this system landlords used to advance money to the labourers for their marriages or other social functions on their undertaking to work for the landlord. Accordingly the borrowing worker had to work in bondage almost for a major part of his life. Fortunately, however, the system has disappeared.

By and large, the condition of landless labourer is as deplorable as anything. Besides poor wage-rates, his plight becomes miserable because of the insecurity and uncertainty of getting any work. As a matter of fact, there is hardly any employment for him during the off-season.

In the nature of things the economic condition of those who get employment in factories is many times better than that of agricultural labourers. The factory workers are assured of reasonable wages and some sort of guarantee of employment. Industrial legislation relating to working conditions, minimum wages, trade union rights, etc. assures a state of economic well-being to the industrial workers which is well nigh beyond the reach of the agricultural labourers. The Employment Guarantee Scheme, under which every person who wants work is provided work near his village, assures work and wages to the landless labourers. This scheme was introduced in the year 1972.

The earliest information regarding wages in the district is available for the period beginning with 1777 which is reproduced below from the former edition of the *Thana District Gazetteer* :—

"In 1777 carpenters were paid annas 6-8, bricklayers 6 *d.* to 1 *s.* (annas 4-8) and unskilled labourers 3 *d.* to 4½ *d.* (annas 2-3) a day. Seventy years later (1874) the rates for unskilled labourers were the same, but for carpenters and bricklayers they were 9 *d.* to 1 *s.* 6 *d.* (annas 6-12). In 1863, when wages were abnormally high, unskilled labourers were paid 6 *d.* to 1 *s.* (annas 4-8), field labourers 6 *d.* to 9 *d.* (annas 4-6) and carpenters and bricklayers 1 *s.* 6 *d.* to 2 *s.* 6 *d.* (annas 12 to Rs. 1¼) a day. The present (1881) rates are, for an unskilled labourer 6 *d.* (annas 4), for a field labourer 7½ *d.* (annas 4¾) for a bricklayer from 1 *s.* to 2 *s.* (annas 8 to Re. 1), and for a carpenter 1 *s.* 8 *d.* (13 annas 4 pies) a day. Women are paid two-thirds and boys one-third of a man's wages. Labourers who are employed for a day or two received their wages daily; those who are engaged for a longer term are paid every four or five days or

weekly During the greater part of the rains and the cold season they (field labourers) find work in the fields, and are paid chiefly in cash. Other employment, such as service in the households of large farmers, is paid for at monthly rates varying from 2 s. to 8 s. (Re. 1 to Rs. 4) and with fair season labourers find employment in digging ponds, making and mending roads, and other public works."

The information about wage trends from 1930-31 to 1946-47 as given in the Administration Reports of Bombay Presidency for the respective years is furnished below :—

There was a slight decline in the wages of skilled and unskilled workers in Thane district in 1930-31. This might be due to the general depression in trade and industry all over the country. During 1931-32, there was no appreciable fall or rise in wages, though the wages of skilled labourers declined slightly because of the set-back to industry. Wages remained stationary in 1932-33 and 1933-34, and the general condition of both skilled and unskilled labour was generally satisfactory. The level of wages was almost stable from 1934-35 to 1936-37, and there were no signs of unemployment in the period. The year 1937-38 marked the beginning of a period of rising wages which continued to be so throughout the war-period. There were also no signs of unemployment during this period. Wage-rates of all categories of labour were higher in 1944-45 and 1945-46 than those in previous years. Due to spurt of industries, building, construction and other activities in 1944-45 and 1945-46, there was a shortage of labour in Thane district. Hence a number of labourers were required to be brought from other districts. In 1946-47 wages were higher throughout due to the continuation of high prices of all essential commodities.

The statistics of annual average wages of certain categories of workers in Thane district during certain selected years are given below :—

AVERAGE AGRICULTURAL WAGE-RATES IN THANE DISTRICT

Year	Carpenter	Blacksmith	Cobbler	Field labour	Other agricultural labour	Herdsmen
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1950—51 ..	4.35	3.29	2.97	2.12	1.15	0.75
1955—56 ..	4.58	4.15	3.66	1.53	1.37	1.10
1960—61 ..	4.70	4.77	4.34	1.48	1.33	1.26
1964—65 ..	5.49	4.62	3.82	1.77	1.61	1.35
1967—68 ..	7.50	6.51	4.75	3.00	3.75	1.50

AGRICULTURAL WAGE-RATES AT DAHANU AND BADLAPUR IN 1973

Centre	Skilled labour			Field labour		Other agricultural labour		Herds-men
	Car-penter	Black-smith	Cobbler	Male	Female	Male	Female	
Dahanu ..	12.50	10.00	6.00	2.67	2.15	..	..	10.00
Badlapur ..	11.67	11.00	7.50	2.69	2.19	3.50	2.37	10.00

The above statistics reveal that the annual average wages of carpenters did not rise substantially from 1950-51 to 1960-61, but they registered a remarkable rise in 1964-65 and 1967-68 and a very steep rise in 1973. While the above statistics are self-evident, they lead one to the conclusion that wages in the district lagged behind prices throughout the period under review. The virtually stable rates of earnings of the rural working class, it can be inferred, must have an adverse effect on their standard of living, since their real wages might have actually declined considerably. Wages of almost all categories, however, rose in 1967-68 and they rose further high in 1973. However, in their case also, it is remarkable that the rise in wage-rates was virtually nullified by the exorbitant rise in prices. Consequently the higher wage-rates did not contribute to the improvement in the standard of living of the rural working class.

The earnings of field labour, other agricultural labour and herdsmen compared very badly with other classes of labour even in the rural areas. It is needless to say that they were very much below the subsistence level. The extremely deplorable condition of this class of workers which is characteristic of the subsistence nature of farming presents a picture of virtual pauperisation of the majority of the workers in the rural country-side.

TABLES

TABLE NO. 1—EXPENDITURE DURING THE THIRD FIVE-YEAR
DEVELOPMENT HEADS AND

Serial No.	Development Sub-Head	Third Five-Year Plan		
		(1961-66)		
		State Sector	Local Sector	Total
(1)	(2)	(3)	(4)	(5)
I. Agriculture and Allied Programme—				
1	Agricultural Production	3.28	21.18	24.46
2	Land Development .. ..	..	..	..
3	Soil Conservation	39.07	..	39.07
4	Minor Irrigation	1.71	1.51	3.22
5	Animal Husbandry .. ..	..	2.42	2.42
6	Dairy Development	23.09	..	23.09
7	Forests	37.00	..	37.00
8	Fisheries	55.14	..	55.14
9	Warehousing and Marketing	0.97	..	0.97
	Total ..	160.26	25.11	185.37
II. Co-operation and Community Development—				
1	Co-operation	14.97	..	14.97
2	Community Development	3.91	138.42	142.33
	Total ..	18.88	138.42	157.30
III. Irrigation and Power				
IV. Small-scale Industries				
V. Transport and Communications				
VI. Social services				
1	General Education	2.26	55.47	57.73
2	Water Supply and Drainage	0.48	0.54	1.02
3	Medical and Public Health	31.44	6.71	38.15
4	Housing	53.37	5.84	59.21
5	Social Welfare	0.52	..	0.52
6	Labour and Labour Welfare	17.22	..	17.22
7	Public Co-operation .. ..	..	..	..
	Total ..	105.36	68.56	173.85
	District Total ..	422.34	273.75	696.09

PLAN AND THE SUBSEQUENT ANNUAL PLANS UNDER DIFFERENT
SUB-HEADS IN THANE DISTRICT

(Figures in lakhs)

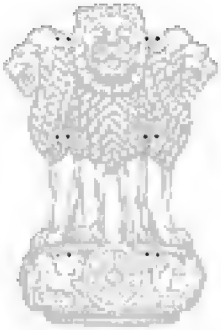
Annual Plans								
1966-67			1967-68			1968-69		
State Sector	Local Sector	Total	State Sector	Local Sector	Total	State Sector	Local Sector	Total
(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	10.63	10.63	..	8.67	8.67	1.21	2.31	3.52
6.39	..	6.39	0.13	..	0.13	..	..	..
15.00	..	15.00	21.07	..	21.07	28.76	..	28.76
0.96	3.98	4.94	0.23	4.36	4.59	10.48	0.16	10.64
..	0.73	0.73	..	0.54	0.54	..	1.15	1.15
4.96	..	4.96	0.02	..	0.02	26.17	..	26.17
4.60	..	4.60	3.74	..	3.74	5.89	..	5.89
26.04	..	26.04	13.94	..	13.94	21.71	..	21.71
..	..	..	0.19	..	0.19	0.02	..	0.02
57.95	15.34	73.29	39.32	13.57	52.89	94.24	3.62	97.86
13.87	..	13.87	0.88	..	0.88	2.26	..	2.26
..	27.81	27.81	..	19.99	19.99	..	9.75	9.75
13.87	27.81	41.68	0.88	19.99	20.87	2.26	9.75	12.01
..
0.72	..	0.72	0.90	..	0.90	0.02	..	0.02
91.58	10.16	101.74	7.64	12.21	19.85	20.07	12.67	32.74
..	7.00	7.00	..	17.15	17.15	..	18.92	18.92
30.25	..	30.25	34.12	..	34.12	20.17	..	20.17
1.39	5.58	6.97	9.98	9.91	19.89	16.04	9.89	25.93
7.89	1.02	8.91	..	0.59	0.59	..	3.85	3.85
0.07	..	0.07	0.19	..	0.19	0.13	0.76	0.89
..	..	..	..	..	..	19.87	..	19.87
0.05	..	0.05	..	..	..	0.05	..	0.05*
39.65	13.60	53.25	44.29	27.65	71.94	56.26	33.42	89.68
203.77	66.91	270.68	93.03	73.42	166.45	172.85	59.46	232.31

*For technical education.

TABLE NO. 2—PLAN OUTLAY, PHYSICAL TARGETS AND
DISTRICT IN THE FOURTH

Serial No.	Name of the Scheme	Actual expenditure (Rupees in lakhs)				
		1969-70 Total	1970-71 Total	1971-72 Total	1972-73 Total	1973-74 Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	<i>Agricultural Programme—</i>					
	I. Agricultural Production including land development—					
	(a) Improved seed programme—					
	(i) Establishment of Taluka Seed Multiplication Farms	1.77	2.13	1.99	1.86	0.45
	(b) Manures and fertilizers—					
	(i) Development of local Manurial resources.	..	..	..	0.02	0.08
	II. Vegetable and potato D. V. Scheme.	..	..	0.13	0.12	0.07
	III. Schemes for small holders—					
	(a) Scheme for deputation of meritorious Agri. Asstt. to Agricultural College for B. Sc. Agriculture course.	..	..	0.10	0.08	0.25
	(b) Scheme for timely reporting of agricultural intelligence.	..	..	0.06	0.06	0.08
	Total	1.77	2.13	2.28	2.14	0.93
	<i>Local Sector—</i>					
	(1) Horticulture Development in Konkan Region (for Thane District.)	0.72	0.95	1.73	0.74	0.74
	(2) Integrated Area Development Scheme—					
	(a) Scheme for small holders (Page scheme).	0.79	6.53	6.00	5.50	3.75
	(b) Loans to Adivasis for construction of wells.	..	0.60	1.00	1.00	0.40
	(c) Loans for development of land cultivated by Adivasis.	..	0.02	0.02	N. A.	N. A.
	(d) Mass Training School.	N. A.	N. A.	0.26	0.29	0.35

ACHIEVEMENTS OF DEVELOPMENT SCHEMES IN THANE
FIVE-YEAR PLAN

Item	Unit	Physical targets and achievements					
		1969-70 Achieve- ment	1970-71 Achieve- ment	1971-72 Achieve- ment	1972-73 Achieve- ment	1973-74 Target	Achieve- ment
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Building	No.	..	..	..	..	1	..
Manures, Fertilizers	Tons	..	..	..	..	29,500	1,624
Coverage	Plot	..	..	..	..	70	44
Staff Scheme	..	..	..	..	..	..	..
....
 <p>सत्यमेव जयते</p>							
New plantation,	Hectares	798	840	301	151	429	631
Renovation,	Trees	3,133	2,476	3,755	3,200	8,300	7,572
Rejuvenation,	Hectares	40	70	37	18	80	95
Distribution of improved seeds.	Hectares	..	412	449	576	400	787
Distribution of fertilizers	Hectares	70	868	682	1,451	1,000	1,523
Plant protection	Hectares	..	..	..	408	400	150
Supply of goats	No.	3,894	2,578	1,214	1,000	..	482
Supply of bullocks	No.	..	101	96	50	30	5
Supply of buffaloes	No.	..	342	338	392	406	201
Wells	No.	..	6	9	9	9	9
Lift irrigation wells	No.	..	..	..	7	7	7
Land	Hectares	..	7	4	..	..	..
Shibir	No.	..	..	100	100	100	100
Cultivators trained.	No.	..	..	3,171	3,729	2,500	2,895

TABLE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>(e) Intensive Cultivation Scheme</i>		..	..	0.09	0.31	0.31
Total ..		1.51	7.48	7.82	6.55	5.55
Total—Agricultural Programme - State and Local Sectors.		3.28	9.61	10.10	8.69	6.48
<i>Minor Irrigation—</i>						
(1) Installation of pumping sets		0.12	..	0.09	0.39	..
(2) Construction of new wells		..	0.60	1.00	1.00	0.40
						Revised
Minor Irrigation Works (State and Local Sector)		31.74	22.32	33.35	46.22	34.11
Minor Irrigation Total ..		31.86	22.92	34.44	47.61	34.51
<i>Soil Conservation—</i>						
(1) Terracing of land		11.35	14.42	15.70	18.93	15.66
(2) Reclamation of Khar and Khajan land.		4.66	7.00	6.50	6.70	4.19
Land Development-cum-horticulture.		0.21	0.46	0.41	0.37	..
Repairs to old Paddy fields		..	..	..	0.65	1.93
Total ..		16.22	21.88	22.61	26.65	21.78
<i>Animal Husbandry—</i>						
Opening of Veterinary Aid centres.		0.04	0.19	0.21	0.22	0.25
Total ..		0.04	0.19	0.21	0.22	0.25
<i>Dairy Development—</i>						
Town Milk Supply Scheme Dapchari Project.		0.38	1.15	2.98	20.10	19.87
Conversion of Palghar cattle farm into Dairy Farm.		8.35	11.19	7.60	12.77	9.63
Assistance to Milk Unions and Federation.		0.03	0.07	0.05	..	..
Total ..		8.76	12.41	10.63	32.92	29.50
Forest (Total) ..		2.87	4.83	6.21	5.72	7.19
Fisheries (Total) ..		16.52	6.04	7.67	8.81	7.90

No. 2—concl'd.

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
{ H. Y. Y. P.	Hectares	..	..	217	262	2,500	1,370	
{ I. C. S.	Hectares	..	..	1,523	1,645	2,552	1,300	
{ Nagli	Hectares	..	..	430	509	1,600	670	
....	
Pumping sets	No.	32	26	6	10	1	..	
Wells	No.	..	6	9	Spillover work under-taken.			
L. I. Works	No.	..	7	4	9	9	9	
Soil Conservation	Hectares	Total terracing of 1,175 hectares						
Repairs of bunds	Hectares	641	526	325	400	400	400	
....	
....	..	Area of 336 hectares was covered.						
....	
Centres	No.	3	1	4	4	..	6	
....	
{ Land	Hectares	..	..	..	791	800	425	
{ Live-stock	No.	80	204	173	..	..	94	
{ Interest Subsidy	{ Rs. in thousands	..	..	..	0.10	11.00	2.02	
{ Cow	No.	250	218	271	266	385	385	
{ Buffalo	No.	139	171	188	191	274	274	
Unions	No.	4	8	5	5	..	..
....	
....	
....	

TABLE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Warehousing and Marketing—</i>						
State Sector Total	..	0.47	0.04	0.24	0.27	
<i>Co-operation and Community Development (State Sector)—</i>						
Co-operation	..	1.74	0.77	1.23	1.38	1.66
Community Development (Local Sector) Programme.		7.46	6.81	6.34	7.31	9.26
Applied Nutrition Programme	..	2.57	1.55	1.13	0.70	0.21
Total	..	10.03	8.36	7.47	8.01	9.47
<i>Power Projects (State Sector)—</i>						
Rural electrification (provision as on 31st March 1973).	..	26.46	26.46	15.70	11.51	
Crash programme	13.99	
Rural electrification	20.52	
Total	..	26.46	26.46	15.70	46.02	
<i>Industry and Mining (State Sector)—</i>						
(a) Small-scale industries	
(b) Development of handloom industries.	
(c) F. A. to small-scale industries under S. S. I. Rules.	..	80	1.10	..	..
(d) F. A. to industrial co-operatives.	0.05	0.74	0.09	0.15	..	
Total	..	0.05	1.54	1.19	0.15	..
<i>F. A. to Industrial co-operatives (State Sector)—</i>						
(a) Scheduled Castes	0.41	0.26	0.18	..
(b) Scheduled Tribes
Total for industry and mining	..	0.05	1.95	1.45	0.33	..

No. 2—*contd.*

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Agricultural Produce No. Market Committee.			5	3	1	..	..	..
....
Blocks	No.		16	17	17	17	13	13
Blocks	No.		4	4	4	4	9	9
		
Villages	No.		81	33	33	16	6	..
Pumps	No.		..	..	..	217	68	..
Villages	No.		..	..	..	..	52	..
....
Societies	No.		1	1	4	1	..	..
Societies	No.		1	1	4	1	..	..
Units	No.		..	44	67	..	..	..
Society	No.		29	24	18	7	..	..
		
....
....

TABLE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Transport and Communications—</i>						
<i>State Sector—</i>						
District Roads .. ..	..	0.79	9.01	41.01	19.18	
Thana Creek Bridge ..	17.12	16.39	15.85	4.54	10.37	
Roads of economic importance ..	..	28.67	13.22	14.17	..	
District Roads in hilly and inaccessible areas.	..	6.33	..	21.35	14.8	
Investigation of anti-sea erosion work at Washi.	..	..	..	..	..
Black-topping .. ..	..	..	..	..	11.09	
Railway Safety Works ..	..	..	..	..	18.80	
Total ..	17.12	52.18	38.08	74.32	..	
<i>Local Sector—</i>						
District Roads ..	4.95	1.40	1.00	2.22	8.09	Revised
Roads in hilly and inaccessible area.	1.42	0.91	1.96	4.17	4.4	
Black-topping programme ..	..	..	2.17	2.47	8.16	Revised
Local Sector—Total ..	6.37	2.31	5.13	8.86	20.59	
Total for Transport and Communications.	23.49	54.49	43.21	89.93	94.91	
Total for Education (State Sector)	9.35	20.21	58.55	70.21	110.88	
Total for Social Services (State Sector).	..	0.15	0.59	0.83	1.06	
Total for Public Health ..	..	11.24	1.49	1.28	1.56	
Government Water Supply and Drainage Scheme—Total	7.83	14.59	10.49	11.50	9.40	
Municipal Water Supply and drainage.	2.09	5.17	8.77	12.67	23.62	
Rural Water Supply Scheme—Total (State Sector)	0.58	7.91	12.48	33.88	24.49	
Water Supply and Drainage (Local Sector).	22.93	40.72	50.39	74.51	65.38	
Social Services—Housing—Total ..	..	0.03	2.70	1.67	..	

TABLE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Social Services—Welfare of Backward Classes—Grant of Scholarships, tuition and examination fees, stipend etc.—Total		0.316	0.46	0.677	0.63	0.68
Social Services, Urban development (State Sector)—Total	
Labour and Labour Welfare (State Sector)—		0.44	1.75	0.22	0.25	0.54
Other Programmes (State Sector)—		0.15	0.66	0.52	0.66	0.24
Centrally sponsored schemes (State Sector) :—						
Health—National Malaria Eradication Scheme.		13.53	22.60	22.00	22.32	..
Tribal development Blocks		12.58	10.50	10.00	10.49	10.37
Health—Family Planning Scheme and construction of Family Planning centres and sub-centres.		..	15.81	20.70	28.98	10.43
National Small Pox Eradication Programme.		..	0.53	0.41	0.79	0.97
<i>Education—</i>						
1. Kisan Shikshan Yojana
2. Central Programme—Free supply of text books and stationery to children of Scheduled Tribes.	0.22
3. Central Programme of construction of primary school buildings.
4. Relief of educated unemployed primary teachers.	0.24
5. Total for Centrally-sponsored schemes.		26.11	49.44	53.11	62.56	22.23

TABLE NO. 3—IMPORTANT PHYSICAL ACHIEVEMENTS UNDER THE DEVELOPMENT PLANS IN THANE DISTRICT*

Serial No.	Head of Development	Item	Unit	Third Five-Year Plan, 1961-66	Annual plans		
					1966-67	1967-68	1968-69
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I	(1) Agricultural Programme						
		(i) Distribution of improved seeds	.. Quintals	8,314-80	4,171	4,060	1,680
		(ii) Distribution of improved implements.	No.	1,753	2,719	741	Nil.
		(iii) Additional area covered by fruits	.. Hectares	7,925	Nil.	1,983	146
		(iv) Chemical fertilisers distributed	.. Metric tons	14,309	10,941	93	15,520
		(v) Compost production	.. No.	52,184	9,753	4,540	Nil.
		(vi) Compost prepared	.. Metric tons	1,43,994	25,075	11,595	Nil.
	(2) Land Development	(i) Area reclaimed	.. Hectares	6,314	2,110	Nil.	2,393
		(ii) Area bunded	.. Hectares	Nil.	416	2,248	Nil.
	(3) Soil Conservation	(i) Area terraced	.. Hectares	1,462	6,379	3,125	1,896
	(4) Minor Irrigation	(i) New wells constructed	.. No.	71	291	133	32
		(ii) Old wells repaired	.. No.	Nil.	88	10	N.A.
		(iii) Installation of pumping sets	.. No.	29	175	41	38
		(iv) Additional irrigation potential created.	Hectares	69	502	363	52
		(v) Bandharas constructed	.. No.	....	19	Nil.	(estimated)
	(5) Animal Husbandry	(i) Veterinary dispensaries	.. No.	3	3	Nil.	4
		(ii) Artificial insemination centres	.. No.	1	1	1	....
		(iii) Cattle breeding centres	.. No.	1	1	1	....
		(iv) Loan for cattle purchase	.. Rs. in lakhs	6.61	Nil.	Nil.	....
		(v) Co-operative Milk Societies and Federations.	No.	14	N.A.	6	....

(6) Forests	..	Plantation of valuable trees	..	Hectares	4,251	3,032	N.A.	200
(7) Fisheries (Inland)	..	(i) Fingerlings stocked	..	No.	63,44,404	25,850	16,99,700	16,53,625
	..	(ii) Netting of fish (Deep sea)	..	Kilograms	12,27,480	1,38,000	4,04,000	N.A.
	..	(iii) Fishing crafts mechanised	..	No.	141	66	43	24
	..	(iv) Boats constructed	..	No.	8	46	20	26
	..	(v) Netting of fish	..	No.	1,31,764	N.A.	N.A.	43,900
	..	(vi) New Fisheries Schools	..	No.	1	1	1	1
	..	(vii) Nylon for nets supplied	..	Kilograms	26,232	11,538	15,350	29,885
(8) Co-operation and Community Development	..	(i) Agricultural Credit Societies	..	No.	150	5	5	3
	..	(a) Societies formed	..	No.	27,306	546	2,357	Nil.
	..	(b) Membership added	..	Rs. in lakhs	370.36	1	118.17	1.11
	..	(ii) Loans advanced by Agricultural Societies.	..	Percentage	N.A.	35.6	48	....
	..	(iii) Percentage of recovery	..	No.	7	19	19	19
II Community Development	..	(i) Blocks functioning	..	No.	527	1,611	1,611	1,611
	..	(ii) Villages covered	..	No.	4,60,718	....	....	....
	..	(iii) Population covered	..	No.	..	..	..	..
III Transport and Communications.	..	(i) New District Roads constructed	..	Miles	10.87	6.4	Nil.	6.50
	..	(ii) Roads modernised	..	Miles	20.86	12.02	Nil.	4.80
	..	(iii) Roads provided with cross drainage	..	No.	6	5	17	22
	..	(iv) Rural roads constructed	..	Miles	16	12.80	Nil.	Nil.
	..	(v) Bridges constructed	..	No.	2	1	3	Nil.
IV Social Services	..	(i) Education—	..	No.	18	N.A.	N.A.	N.A.
	..	(a) School buildings constructed	..	No.	49	160	N.A.	N.A.
	..	(b) Class rooms	..	No.	..	..	..	..

TABLE No. 3—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		(ii) Teachers trained	..	..	N.A.	N.A.	Nil.
		(iii) Schools started—					
		(a) Primary	..	..	N.A.	35	N.A.
		(b) Secondary	..	..	N.A.	16	N.A.
		(iv) No. of pupils increased—					
		(a) Primary	..	1,17,005	17,943	8,890	N.A.
		(b) Secondary	..	2,52,771	11,662	6,643	N.A.
		(i) Additional beds	..	..	Nil.	Nil.	....
		(ii) Buildings for primary health centres	..	..	N.A.	....	....
		(iii) Primary health centres started	..	..	N.A.	....	....
		(iv) Family Planning Units	..	..	N.A.	N.A.	Nil.
		(v) Drinking water wells constructed	..	..	160	63	4
		(vi) Villages benefitted	..	..	N.A.	N.A.	N.A.
		(vii) Doctors appointed	..	..	N.A.	N.A.	N.A.
		(viii) Nurses appointed (Midwives)	..	..	N.A.	N.A.	N.A.
(2) Housing	..	(i) Tenements constructed	..	..	235	131	Nil.
(3) Labour	..	(i) New institutions for vocational and technical training—					
		(a) Institutions	..	..	1 (contd.)	1 (contd.)	3
		(b) Intake capacity	..	..	1 (contd.)	1 (contd.)	564

* Source.—Compiled from the *Socio-Economic Review and District Statistical Abstracts, Thane District*, Bureau of Economics and Statistics.

TABLE NO. 4—FIFTH PLAN PHYSICAL TARGETS

Heads/Sub-heads—District level schemes	Fifth Plan Outlay Rs. in lakhs	Items of physical achievements	Unit	Fifth Plan target
(1)	(2)	(3)	(4)	(5)
I. <i>Agricultural Programmes—</i>	....	1,181.54		
(a) <i>Agricultural production—</i>	..	1,27.23		
(1) Development of existing taluka seed farms	12.50	Number of existing seed farms	.. No.	6
		New seed farms to be established	.. No.	2
(2) Laying out of composite demonstration plots.	0.10	Number of composite plots to be laid	.. No.	50
(3) Subsidised distribution of fertilisers	15.00	Area to be covered— (i) Paddy (ii) Nagali	.. Hectares .. Hectares	6,000 2,000
(4) Subsidy for plant protection campaigns.	3.90	Area to be protected	.. Hectares	Target will depend upon the area.
(5) Supply of power tillers	..	2.00 Power tillers to be supplied on subsidy basis.	No.	50
(6) Extension of area under cocoanut, mango, <i>Chiku</i> , Sugarcane.	28.00	(1) Cocoanut plants (2) Mango grafts (3) <i>Chiku</i> grafts (4) Sugarcane	.. lakhs .. lakhs .. lakhs .. Hectares	5 0.10 0.15 2,000
(7) Extension of potato cultivation	..	1.00 Area to be covered under extension of potato crop.	Hectares	100

TABLE No. 4—*contd.*

(1)	(2)	(3)	(4)	(5)
(8) Extension of wheat crop ..	12.00	Area to be covered under wheat, by giving subsidy of Rs.200 per hectare.	Hectares	6,000
(9) Intensive cultivation of food-crop ..	2.00	Opening of new intensive cultivation blocks.	No.	3 blocks.
(10) Integrated area development schemes ..	50.73	Continuance of existing blocks	No.	2 Shahapur, Murbad.
		Opening of new blocks	No.	2 Bhiwandi, Bassein.
(11) Utilization of cow-dung manure ..	10.00	Trucks to be supplied	No.	20
(b) Minor Irrigation—	610.00			
(1) Construction of new irrigation wells ..	15.00	Construction of new irrigation wells	No.	2,000
(2) Installation of pumping sets and oil engines.	30.00	Installation of oil engines and electric motor pumping sets.	No.	3,750
(3) Boring and blasting of wells (irrigation purpose).	20.00	Boring of existing irrigation wells	No.	7,000
(4) Community wells ..	25.00	Community wells	No.	825
(5) Co-operative lift irrigation ..	5.00	Assistance to societies	No.	25
(6) Minor irrigation works—				
Local Sector ..	172.00	Minor irrigation works to be completed	No.	80
State Sector ..	323.00	Do.	No.	41
(7) Purchase of machines of air hammers type rig-boring	10.00	Purchase of air hammers type rig-boring machines.	No.	1

(c) Soil conservation				
(1) Terracing of land including repairs to paddy fields	..	62.00	Paddy fields area to be terraced	.. Hectares 6,000
(2) Reclamation of Khar and Khajian land	..	49.75	Area to be reclaimed	.. Hectares 757
(d) Animal Husbandry	..	70.61		
(e) Dairy development—	..	110.25		
(1) Co-operative dairy project	..	110.00	Co-operative dairy project to be started as per Jalgaon pattern.	No. .. 1
(2) Co-operative dairy societies	..	0.25	Dairy societies to be assisted	No. .. 10
(f) Total for Forest	..	100.00		
(g) Fisheries	..	100.45		
(h) Warehousing and Marketing	..	1.00	Agricultural produce market committees to be assisted.	No. .. 6
II. Co-operation and Community Development				
(a) Co-operation	..	136.66		.. .. .. .
(b) Community development and nutrition programmes.	..	84.66		.. .. .. .
III. Irrigation and Power—				
(a) Major and Medium Irrigation Projects—	..	1,600.00		
(1) Suryya Project	..	1,000.00	Potential	.. Hectares 2,300
(2) Bhatsa Project (land work)	..	3,84.00	Potential Land and Earthwork	.. KW 52 Hectares 2,340

TABLE No. 4 *concl'd.*

(1)	(2)	(3)	(4)	(5)
(3) Other Projects including Pinjal, Wandri, Kalu, Shai, Dehark, Dhamani, Dharamane, Hatnav etc.	2,16.00	Ultimate potential of Wandri Project (preliminary investigation of 7 projects).	Hectares	2,600
(b) Power—Rural electrification	....	....	No.	400
IV. Industry and Mining—	1,23.55			
(a) Large and medium Industries—	..			
(1) Establishment of Co-operative Spinning mills.	99.85	Financial assistance	No.	1
(2) Co-operative Industrial estates	91.00	Co-operative spinning mills to be started	No.	1
(b) Small-scale industries—	8.85			
(1) Assistance to village artisans' societies	23.70	Assistance by way of share capital contribution.	No.	13
(2) Financial Assistance to Industrial Co-operatives.	6.50			
(3) Assistance to Industrial Co-operative Societies of Backward classes.	3.45	Assistance by way of share capital contribution.	No.	2
(4) Subsidy on electric power consumption	....	Societies	No.	..
(5) Loans to individuals under S. A. I. Rules.	1.25	Scheme has been discontinued	..	....
(5) Loans to individuals under S. A. I. Rules.	12.50	Scheme is discontinued.	..	....

12	Area irrigated by wells	..	..	Hectares	..	3,598	4,367	2,986	....
13	Area irrigated by other sources	..	..	Hectares	..	Nil.	Nil.	124	....
14	Area irrigated under—								
	(a) Food-grains	..	..	Hectares	..	Nil.	118	11	....
	(b) Sugarcane	..	..	Hectares	..	42	47	15	....
	(c) Groundnut	..	..	Hectares	..	Nil.	Nil.	....	....
	(d) Cotton	..	..	Hectares	..	Nil.	Nil.	Nil.	....
	(e) Fruits	..	..	Hectares	..	Nil.	Nil.	3,014	....
<i>Soil conservation work</i>									
1	Area banded	..	..	Hectares	..	N.A.	N.A.	Nil.	....
2	Area terraced	..	..	Hectares	..	N.A.	N.A.	1,179	1,175
3	Area reclaimed	..	..	Hectares	..	N.A.	N.A.	1,179	405
<i>Agricultural implements</i>									
1	Ploughs—								
	(1) Wooden	..	..	No.	..	94,563	1,06,142	1,16,490	....
	(2) Iron	..	..	No.	..	343	249	1,455	....
2	Oil engines with pumps (for irrigation purpose)	..	..	No.	..	498	806	838	....
3	Electric pumps (for irrigation purpose)	..	..	No.	..	40	63	....	....
4	Sugarcane-crushers—								
	(a) Power-operated	..	..	No.	..	35	4	....	....
	(b) Bullock-driven	..	..	No.	..	71	25	....	....

TABLE No. 5—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Live-stock</i>						
	Total live-stock	.. .. .	..	6,51,800	7,51,462	7,21,900
	Net cropped area per pair of bullocks (male cattle over 3 years)..	Hectares	..	3.08	1.43	3.04
	Poultry	.. .. .	..	3,38,300	5,89,600	6,13,966
<i>Fishery Statistics</i>						
1	Boats engaged in fishing	.. .. .	..	..	..	..
2	Fishery Co-operative Societies	.. .. .	..	..	..	37
3	Membership of (3)	.. .. .	..	..	..	22,455
4	Total paid up capital of Fishery Societies	.. .. .	..	..	..	..
5	Fish handled by (3) (by sale value)	.. .. .	..	..	..	32,196
6	Co-operative Boat building yards	.. .. .	..	..	..	Nil.
<i>Factory employment</i>						
1	Working factories	.. .. .	..	N.A.	578	854
2	Average daily employment	.. .. .	..	..	62,095	96,601
3	Number of workers employed in registered factories per lakh of population.	.. .. .	..	..	2,141	4,239

Electricity

1	Electricity generated	..	..	..	..	0.01	0.04	N.A.
2	Electricity consumed	..	..	..	..	152	936	996
3	Towns electrified	..	..	..	..	18	20	24
4	Villages electrified	..	..	..	..	165	651	755

Transport and Communications

1	Road length (Extra municipal)	..	..	..	..	1,539	2,315	2,621
2	(a) Length of roads per 1,000 square	..	..	..	..	167	242	274
	(b) Length of roads per lakh of population	..	..	..	..	93	101	115
3	Total railway length	..	..	..	..	212	212	212
4	Number of post offices	..	..	..	..	167	2,521	256
5	Telegraph offices	..	..	..	..	31	57	58
6	Radio licences issued—	..	..	..	..	..	..	..
	(a) New	..	..	..	..	..	..	..
	(b) Renewed	..	..	..	..	12,242	97,633	1,65,646

Community development

1	C.P.A. Pattern blocks	..	..	..	..	9.75	24.75	24.75
2	(a) Villages covered	..	..	..	..	1,031	1,622	1,638
	(b) Towns having population of less than one lakh	..	..	..	..	N.A.	22	22
3	Population covered	..	..	..	..	14,43,811	19,42,627	16,19,316
4	Banking offices	..	..	..	..	37	120	164

TABLE No. 6—AVERAGE RETAIL PRICES OF IMPORTANT
COMMODITIES AT DISTRICT HEADQUARTERS
THANE DISTRICT

(Prices in Rupees per kilogram except otherwise stated)

Serial No. (1)	Commodity (2)	1964 (3)	1966 (4)	1969 (5)	1971 (6)	1973 (7)
1	Rice	1.08	N.A.	N.A.	..	N.A.
2	Rice (medium) ..	0.97	..	..	1.10	N.A.
3	Wheat (fine) ..	1.18	..	N.A.	..	..
4	Wheat (coarse) Khapali ..	0.89	N.A.	..	1.14	..
5	Jowar (white Barsi) ..	0.75	N.A.	..	1.05	N.A.
6	Bajra (Khapali) ..	0.75	..	1.10	1.00	1.79
7	Gram dal ..	1.20	2.10	1.54	1.67	2.53
8	Arhar dal (Fine) ..	1.37	1.41	1.84	2.40	2.74
9	Mug dal ..	1.46	1.71	2.14	2.38	3.32
10	Masur dal ..	1.16	1.35	1.51	1.79	2.24
11	Sugar ..	1.27	1.37	2.72	2.04	3.75
12	Gul ..	1.35	1.34	1.80	1.78	2.90
13	Groundnut oil ..	2.51	4.50	4.46	4.67	7.70
14	Vanaspati ..	3.48	5.63	5.53	6.20	7.80
15	Milk (litre) ..	..	1.44	1.75	1.75	2.38
16	Meat Goat ..	4.00	5.12	5.50	6.03	7.55
17	Fish Fresh ..	3.00	3.00	3.00	3.42	4.54
18	Eggs (Dozen) ..	2.44	3.16	3.44	3.56	4.32
19	Potato ..	0.75	0.84	0.74	0.95	1.21
20	Onion ..	0.38	0.40	0.46	0.45	0.81
21	Kerosene oil (litre) ..	0.41	0.48	0.52	0.56	0.68
22	Charcoal (40 kilograms) ..	9.00	12.00	12.00	14.50	18.00
23	Fire-wood (40 kilograms) ..	3.40	4.00	4.00	4.18	5.85

* * *

CHAPTER 10 — GENERAL ADMINISTRATION

INTRODUCTION

PUBLIC ADMINISTRATION IN THE STATE IN THE LAST CENTURY consisted mostly of providing security of person and property and raising the revenue necessary for the purpose. In other words, police, jails and judiciary representing security and land revenue, excise, registration and stamps representing revenue formed the most important departments of the State. After Independence administration of public affairs has become development-oriented. The functions of the Government have expanded more and more to cover the development of agriculture, industries, education, health, co-operation and the necessary amenities to the public. This has necessitated the expansion in the administrative machinery of the Government. Consequently new offices and officials have almost multiplied during the past few years.

The departments of the State Government which constitute public administration at the district level are grouped as under :—

Chapter 10—General Administration.

Chapter 11—Revenue Administration.

Chapter 12—Law, Order and Justice.

Chapter 13—Other Departments.

Chapter 14—Local Self-Government.

Chapter 15—Education and Culture.

Chapter 16—Medical and Public Health Services.

Chapter 17—Other Social Services.

DIVISIONAL COMMISSIONER

The former Divisional Officers have been replaced by the Divisional Commissioners since passing of the Bombay Commissioners Act, 1957. The revenue divisions are now controlled by the Divisional Commissioners. The Divisional Commissioner, Bombay, exercises jurisdiction over the Thane district.

The Commissioner supervises the working of revenue offices ; exercises executive and administrative powers delegated to him by Government ; undertakes general inspection of offices and co-ordinates and supervises the activities with particular reference to planning and development in the district. He is also the co-ordinating authority as far as the development activities of the Zilla Parishad are concerned.

COLLECTOR

The Collector is the pivot round which the district administration turns. Not only he is the head of the Revenue department in the district but, in so far as the needs and exigencies of the district administration are concerned, he is also expected to superintend the working of the offices of other departments. He has to perform multifarious duties and functions.

Revenue : Collector is the custodian of Government property in land, and guardian of interest of members of public in land in so far as the interests of Government in land have been conceded to them. He has to perform duties pertaining to fixation and collection of land revenue in his district. The revision, survey and settlement which is carried out by the Land Records Department is reviewed by the Collector. The Government grants suspensions and remissions in bad seasons as a matter of grace, and the Collector determines the amount of such remissions and suspensions. The assessment of non-agricultural land is also done by him according to the provisions of the rules made under the Land Revenue Code.

The Collector is also responsible for the collection of fees and taxes under the various Acts such as the Bombay Irrigation Act, 1879 ; the Indian Forest Act, 1927 ; the Indian Stamps Act, 1899 ; the Indian Court-fees Act, 1870 ; the Bombay Prohibition Act, 1949 ; etc.

In some cases the Collector is empowered to recover dues under these Acts as arrears of land revenue. The Collector is an appellate authority to hear appeals under various sections of the Bombay Tenancy and Agricultural Lands Act, 1948.

Public Utility : The needy agriculturists are granted loans for financing their agricultural operations under the Agriculturists' Loans Act, 1884 and the Land Improvement Loans Act, 1883. The Collector's responsibility in this respect lies in estimating the needs of the district in accordance with the policy of Government. He has to take necessary steps for the advantageous distribution of the amount allotted for the purpose and to see that the advances are recovered effectively at proper time.

The Collector of Thane is the Court of Wards for the estates taken over under the Bombay Court of Wards Act, 1905.

Accounts : The Collector is in charge of treasury and is responsible for the due accounting of all money received and disbursed, safe custody of treasury, etc. He is responsible to the Accountant-General in so far as the matters pertaining to accounts and audit are concerned. All the treasury work is done by the Treasury Officers under supervision of the Collector.

Quasi-judicial Functions : Among the *quasi-judicial* functions of the Collector, besides hearing appeals from the Sub-Divisional Officers, the following may be mentioned :—(a) the revisional powers exercised under the Bombay Mamlatdars Courts Act, 1906 ; (b) appellate powers under the Bombay Irrigation Act in respect of fixation of betterment charges on lands under canal ; (c) work in connection with execution of civil court decrees ; and (d) proceedings and awards under provisions of the Land Acquisition Act, 1894.

District Magistrate : The duties of the Collector as District Magistrate are mostly of an executive nature. Being the head of all other executive magistrates he exercises the following among the various powers :—

(1) Power to call for records from any subordinate executive magistrate.

(2) Power to hear appeals from orders requiring security for keeping peace and good behaviour.

(3) Power to issue commissions for examination of witnesses.

(4) Power to hear appeals from or to revise orders passed by subordinate executive magistrates.

The Collector exercises control over the police in the district, and as District Magistrate, has extensive powers under the Criminal Procedure Code, the Bombay Police Act and other matters of maintenance of law and order. In his capacity as District Magistrate, he is concerned with the issue of licences and permits under the Arms Act of 1878, the Petroleum Act of 1899, the Explosives Act of 1884, and the Poisons Act of 1904.

Zilla Sainik Board : The Collector is the Chairman of the Zilla Sainik Board. The Board endeavours to promote and maintain a feeling of goodwill between the civil and military personnel and to look after the welfare of families of soldiers serving in the defence forces.

DEPUTY COLLECTORS

The Sub-Divisional Officers or Prant Officers or Deputy Collectors, as they are called are in charge of the sub-divisions of the district. They assist the Collector in administrative work.

The district is divided into three sub-divisions, as shown below :—

Sub-Division	Talukas covered		
Thane	Thane, Kalyan, Ulhasnagar, Murbad.

Sub-Division			Talukas covered
Bhiwandi	...	...	Bhiwandi, Shahapur, Vasai, Wada.
Dahanu	...	...	Dahanu, Palghar, Jawhar, Mokhada, Talasari.

At present there are three Deputy Collectors working in the district at Thane, Bhivandi and Dahanu, and they form the link between Collector and the Mamlatdars.

The Deputy Collector exercises all powers conferred on the Collector under the Land Revenue Code and other relevant laws except such powers as the Collector may reserve for himself. He inspects and supervises the work of Mamlatdars, Circle Officers and Circle Inspectors, appoints and transfers stipendiary village officers, grants waste lands and hears appeals against the orders passed by Mamlatdars.

The Deputy Collector acts as the Sub-Divisional Magistrate and exercises all powers specified in Part IV of Schedule III of the Criminal Procedure Code. These powers include powers to maintain peace, to ensure security for good behaviour, to record statements and confessions and to hold inquests.

He is also required to inspect the police stations in his capacity as the Sub-Divisional Magistrate.

MAMLATDARS

The Mamlatdar is in charge of a taluka. There are thirteen Mamlatdars in Thane district, one each at Thane, Kalyan, Bhiwandi, Shahapur, Ulhasnagar, Murbad, Wada, Vasai, Dahanu, Palghar, Talasari, Jawhar and Mokhada. The various duties performed by Mamlatdars are given in the following paragraphs :

Revenue : In respect of annual demand of land revenue the Mamlatdar has to prepare all the statements known as the *Jamabandi* of taluka. It is partly an audit of the previous year's accounts and partly an inspection of accounts of current year. Remissions and suspensions are given according to crop *annevari*. To the demand of fixed revenue is added the amount of non-agricultural assessment and of fluctuating land revenue such as that arising from the sale of trees, stone or sand, fixed when individuals apply for them.

He has to collect, in addition to land revenue, *tagai* loan recoveries, *pot hissa* measurement fees, irrigation revenue and dues of other departments. It is also his duty to see that there is no breach of any of the conditions under which *inams* are held.

Applications for the grant of *tagai* loans are received by the Mamlatdar who institutes the necessary inquiries through the Circle Officers and Circle Inspectors. The Mamlatdar grants *tagai* loans under the Land Improvement Loans Act and Agriculturists' Loans Act. He is primarily responsible for the administration of the Bombay Tenancy and Agricultural Lands Act, (1948) within the area of his charge.

Magisterial : Every Mamlatdar is an *ex-officio* Taluka Magistrate. Under the Criminal Procedure Code he exercises the following powers among others :—

- (1) Power to disperse unlawful assembly,
- (2) Power to apply to District Magistrate to issue commission for examination of witnesses.
- (3) Power to make order as to disposal of property regarding which an offence is committed.

The Mamlatdar is also in-charge of sub-jails. He has to keep the District Magistrate and Sub-Divisional Magistrate informed of all the criminal activities in his charge and the steps taken to maintain law and order.

Treasury and Accounts : The Mamlatdar also acts as a Sub-Treasury Officer and pays departmental officers on cash orders or demand drafts issued by Treasury Officer and on cheques except where certain departments are allowed to present bills direct at the sub-treasury.

The taluka sub-treasury is the local depot for stamps (general, court-fee and postal) of all denominations. A currency chest is maintained in all sub-treasuries in which surplus cash balances are deposited. The sub-treasuries are treated as agencies of the Reserve Bank of India for remittance of funds. The Mamlatdar's duty pertains to verification of balance in the sub-treasury including those of stamps on the closing day of each month. The sub-treasuries are annually inspected by the Collector or Sub-Divisional Officers.

Other administrative duties : The Mamlatdar has to keep the Collector and Sub-Divisional Officer informed about the out-break of epidemics and other calamities affecting the well-being of the inhabitants and also drawbacks in the administrative machinery. He is supposed to help officers of all departments in the working of their respective departments in so far as his taluka is concerned. He is the connecting link between the public and the different departments working in the taluka.

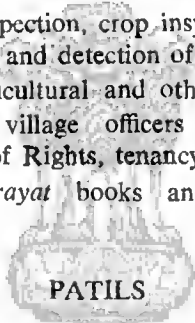
In relation to public well-being the Mamlatdar is the local representative of Government and performs generally the same functions as the Collector but on a lower level.

CIRCLE OFFICERS AND CIRCLE INSPECTORS

The Mamlatdar exercises supervision over village officials and servants through Circle Officers and Circle Inspectors. The Circle Officer certifies entries in the Record of Rights and thus relieves the Mamlatdar of a good deal of routine work. The number of villages put in charge of Circle Officer or a Circle Inspector is from thirty to fifty. These officers form a link between the Mamlatdar and the village officers. There are generally one Circle Officer and four Circle Inspectors in each taluka. During 1976 there were sixteen such Circle Officers and 52 Circle Inspectors in Thane district.

The duties of Circle Officers and Circle Inspectors are as under :—

- (1) Boundary-mark inspection, crop inspection including *annewari*, inspection of *tagai* works and detection of illegal occupation of land ;
- (2) preparation of agricultural and other statistical data ;
- (3) supervision over village officers in the preparation and maintenance of Record of Rights, tenancy register, etc. ;
- (4) examination of *rayat* books and supervision of revenue collection.



The Patil is a village official. The post of hereditary Revenue and Police Patil was abolished by the Maharashtra Revenue Patil (Abolition of Office) Act, 1962, and now stipendiary Patils are appointed in place of them.

He has to collect revenue dues to Government from *rayats* in conjunction with the Talathi ; detect encroachment over Government lands and protect Government property ; execute the orders of taluka officers in connection with the recovery of revenue and other matters ; and render necessary help to high officials visiting the village for inspection.

The Bombay Village Police Act of 1867 places much responsibility upon the Police Patil. He has to ensure protection against robbery, breach of peace and acts injurious to village community. He keeps the Taluka Magistrate constantly informed about the state of crime in the area under his charge. He has to execute all orders and warrants issued to him by an Executive Magistrate or a police officer and has to forward information of crime to the nearest police station.

TALATHIS

In the past the office of the Talathi (village accountant) was held by hereditary *Kulkarnis*. From 1914 hereditary *Kulkarnis* were allowed with some restrictions to commute the right of service attached to the *Kulkarni watans*. However the Bombay Pargana and Kulkarni Watans Abolition Act, 1950, abolished all these *Kulkarni watans*. Now the Talathis work in place of them.

The main duties of the Talathis are : —

(1) To maintain village accounts relating to the collection of land revenue, the Record of Rights and other registers required to be kept by Government ;

(2) to inspect boundary and crop marks and prepare agricultural statistics and levy list ; and

(3) to help the Patil in connection with the collection of land revenue.

In 1976 there were 264 Talathis in the district.

KOTWALS

In addition to the village officers mentioned above there are stipendiary Kotwals to assist the Patil and the Talathi in their day-to-day work. The Bombay Inferior Village Watans Abolition Act of 1958 abolished all hereditary inferior village servant *watans*, and stipendiary Kotwals have been appointed.

The number of Kotwals for every village depends upon the population of the village. Generally one Kotwal is appointed for a village having a population of 500. In Thane district there were 1,133 Kotwals in 1976.

The services of Kotwals were transferred to the Zilla Parishad and Panchayat Samitis. However the same were again re-transferred to the Revenue department.

* * *



सत्यमेव जयते

CHAPTER 11 — REVENUE ADMINISTRATION

AFTER INDEPENDENCE THE IDEA OF A WELFARE STATE BEGAN TO TAKE a concrete shape, and Government activities and expenditure in this direction increased on a considerable scale. The various sources of income other than land revenue are now explored to augment the revenue of the State exchequer.

LAND REVENUE COLLECTION

The land revenue collection rests with the Collector who has to see that the revenue dues are recovered punctually every year and with the minimum of coercion, and that the collections are properly credited and accounted for.

The following are the statistics relating to land revenue collection in Thane district for the year 1974-75 :—

Particulars	Rs.
Current year consolidated demand of land revenue (excluding collection of last and previous year).	15,56,777
Gross consolidated demand of land revenue	15,56,777
Actual collection	15,56,777

A brief account of the functioning of those Government departments which are entrusted with revenue administration is given below :—

Land Records: The old *Thana District Gazetteer* has described the land revenue system then prevalent in the district as under :—

Most of the forms of assessment that were in force when Thana was ceded to the British, can be traced to the Hindu chiefs who held the country before arrival of Musalmans. Rice lands were, without measuring them, divided into blocks which were estimated to require a certain amount of seed. This system alongwith other names was known as *dhep. hundabandi* etc.

Little was known of the revenue changes introduced by the Muslim rulers of the 14th and 15th centuries. During the 16th

century in the south-east and south, the officers of the Ahmadnagar government are said to have measured the rice land and reduced government share to $1/6$ and in the uplands to have continued the levy of a plough cess. In the meanwhile coastal line including Thana had passed in the hands of Portuguese. The rice lands remained divided in blocks and in hilly areas levy of plough remained as it is. Some of the richer lands are said to have been surveyed.

In the 16th century, Malik Ambar's system nominally stretched from Vaitarna to Savitri except the *habshi* lands but it did not have been anything like completely carried out.

Later in 17th century Annaji Dattu, Shivaji's minister, made a fresh survey and assessment in the southern district of Thana. Under this system the rice lands were measured into *bighas* of 4,014 square yards, the lands were divided into twelve classes and government demand, after taking tests during three successive years, was fixed at about 40 per cent of the produce. Under the *Peshwa*, the management was entrusted to an officer styled as *sarsubhedar*. About the year 1770 a vigorous attempt was made to simplify and improve the system of assessment. The first survey was made in 1771-72 when land was divided into *bighas*, arranged into 3 classes according to the nature of soil and each class was assessed at a *bigha* rate.

Under the British, a new system was introduced in 1798-99. The pretty taxes levied by Portuguese and Marathas were abolished and Government demand was fixed at $1/3$ of the estimated average produce for all lands except *shilori* lands which were charged at a little more than $1/5$.

There were six leading forms of assessment, *bighavni* or *bigha* rate, *dhep* or an unmeasured parcel of land, *toka* or *hunda* meaning much the same as *dhep*, *mogham* or vague, *ardhel* or half share, and *hangar* or *koyta*, a plough or sickle tax.

In 1825 the number of sub-divisions of the district was reduced from 17 to 9. During the year some parts of the district were surveyed by the Collector. But the Government suspended this survey as some mistakes were made in the length of measuring rod as no special officer was available.

The forms of assessment differed little from those in use at the beginning of British rule. They were six, three of them in rice lands. Of the three forms of rice assessment, the *bigha* rate was in force in the south-east sub-division, the *dhep* in the coast lands and the *hunda* and *tokabandi* in north and north-east. The *bigha* rate included about $3/5$ of the whole rice tillage. It was of two classes, sweet rice land and salt riceland. In most of the sweet rice land payment was

demand in money while in other cases rent was taken in kind. The lands which were assessed as garden land were in Bassein, Mahim and Salsette. Where the rents were payable in kind the commutation rates were fixed according to actual market price, deducting about 10 per cent in favour of the husbandman.

Villages were managed by government officers. The village rent settlement, *jamabandi*, was made with landholders. The settlement was made at first instance by the accountant and the Patil. The assessments of fallow lands were deducted and those of freshly tilled lands were added. The details of the settlement were entered in the village revenue statement or *chittha*.

An assessment revision was carried out between 1835 and 1842 and survey was made between 1852 and 1866. The plan of the survey was to measure in detail every rice and cold weather crop holding and to measure the uplands, the grass and the hill grain lands as a whole calculating their area by scale measurement from a map. The rice and cold weather crop land was first divided into sections or survey numbers and the individual holding which each survey number contained were separately measured and recorded as sub or *pot number*.

The land revenue system prevalent in the district is *ryotwari* which is based on survey, classification and settlement of the assessment of every field. The original survey settlement was introduced in the district between 1861 and 1862. The first revision settlement was taken up in the district in 1896 and the second revision settlement in 1927. The period of the current settlements expired in the year 1957. Of the 85 *khoti* and *inam* villages in the district, forty villages were already settled and the work in regard to the remaining was completed in the year 1955.

Survey : The survey was first carried out by chain and cross-staff. Subsequently Plan Table replaced the old survey instruments. The unit of length was chain (one chain=thirty-three feet), one chain equivalent to sixteen annas. The unit of the area was acres and gunthas (one acre=forty gunthas). The surveys are now done in metric measures according to the provisions of the Bombay Weights and Measures Enforcement Act, 1958 and the directives from the Settlement Commissioner and Director of Land Records. The settlement of assessment is directly done with the occupant of land and the unit of assessment is the survey number and the sub-division of a survey number. The area of the survey number or sub-division of the survey number is noted down in terms of acres, *gunthas*, annas, *prati annas* and assessment in terms of rupees and *paise*.

Maps for surveyed villages : *Ex-khoti* villages in Thane district have been measured by Plan Table. The maps of these villages have been prepared in the scale of 1"=20 chains showing therein survey numbers and topographical details such as roads, *nallas* etc. With the help of village maps, taluka and district maps have been prepared in the scale of 1"=2 miles. The detailed maps of individual survey numbers and sub-divisions have been prepared in the scale of 1"=2½ chains or 1"=1¼ chains.

Land Classification : The main classes of lands recognised were dry crop, rice and garden lands, and each field was classified according to its texture and depth of the soil. The classification value was increased for advantages and decreased when there were no such advantages. In case of dry crop lands, gradual additions are made to the soil classification of lands possessing advantages of drainage. In the case of rice and garden lands, in addition to soil factor, the water factor is also classified in consideration of the water-supply and kind of crop. The soil classification originally confirmed during the revision survey is final and no general re-classification of soil is made again at further revision settlement. The occupant is however entitled to re-classification and reduction of assessment of his land on account of physical deterioration of soil. All improvements are liable to taxation save for a period of thirty years immediately preceding the year in which the settlement is introduced.

The following *pot kharab* lands are especially taken into consideration in the survey in this region :—

- (1) Embankments for retaining water which are more than two annas in breadth and on which grass is grown and no crop is possible.
- (2) Large embankments, water-channels for drainage and places affected by salt water.
- (3) The area having large stones and sheet rocks.
- (4) Houses, *nallahs* or other uncultivable area.

In addition to the above classes of land, there is one more class of land known as *pulan* land. These lands are sandy, situated in the immediate neighbourhood of the sea and creeks. They were wrongly included in garden numbers classed as *pot varkas* or altogether left at the time of original survey. However, in the revision settlements they have been properly distinguished and classified by soil value according to their level and admixture of sand.

Settlement and assessment : The settlement procedure prior to the year 1939 was prescribed by administrative orders of Government. However, under the Land Revenue Code Amendment Act of 1939 (Bombay Act XX of 1939), the process of revising the land revenue assessment is prescribed by including the new chapter VIII-A, in the

Land Revenue Code, 1879. The procedure in question laid down in the law was thereafter simplified by the provisions made under the Bombay Act (XXVIII of 1956).

The settlement officer examines the past history of area with the intention to assess the general effect of the existing incidence of assessment on economic conditions of the area. He also collects statistical data pertaining to market, wages, prices, sale of land, yield of crops, etc. On making settlement, he divides the area into groups, and fixes the standard rates for each class of land. The rates are so fixed that the aggregate assessment on the occupied lands in any group shall not exceed 35 per cent of the average of the rental values of such lands for a period of five years immediately preceding the year in which the settlement is divided.

The settlement officer formulating his proposals of settlement in the form of comprehensive report submits them to the Collector and the same is published in the regional language. The period of three months from the date of notice is allowed for any objections to the settlement proposals. After taking into consideration objections, if any, the Collector forwards the Settlement Officer's report to Government through the Settlement Commissioner and Director of Land Records. After considering the settlement report and recommendations of the State Revenue Tribunal, the State Government passes final orders on the settlement report. After a notice of settlement has been given in the prescribed form, the settlement is deemed to have been introduced.

Record of Rights : The law pertaining to the record of rights (included in the Land Revenue Code, 1879 as Chapter X-A) was enacted in the year 1913. It has been made applicable to all the revenue villages in Thane district. The record of rights mainly contains the following details :—

(a) the names of all persons who are holders, occupants, owners, tenants and mortgagees of the land or assignees of the rent or revenue thereof ;

(b) the nature and extent of the respective interests of such persons and the conditions or liabilities attached thereto ; and

(c) the rent or revenue, if any, payable by or to any such persons.

The present record of rights provides information regarding the total area of holdings, *pot-kharab*, cultivable area, mode of cultivation, etc.

Functions : The Land Records Department was created in the year 1884 when the revision, survey and settlement operations were nearing completion, and the old Survey and Settlement Department was brought to a close. The department is an adjunct to the Revenue Department. Its functions are : (i) to maintain all survey classification and settlement record up-to-date by keeping careful notes of all changes ; (ii) to collect and provide statistics necessary for the sound

administration of all matters connected with land and land revenue ; (iii) to provide reliable survey and other records in revenue and civil courts when necessary ; (iv) to supervise the preparation and maintenance of record of rights and the periodical inspections of the boundary-marks ; (v) to conduct periodical revision settlement operations ; (vi) to organise and carry out village site and city surveys on an extensive scale and arrange for their up-to-date maintenance ; (vii) to undertake special surveys for private individuals or for public bodies, surveys in connection with railways and local bodies such as municipal councils, etc., and town planning schemes and surveys for Government departments ; (viii) to maintain up-to-date village maps, and to arrange for their distribution to various departments for administrative purposes and for sale to the public ; and (ix) to train the revenue officers in survey and settlement matters.

District Inspector of Land Records : The District Inspector of Land Records, Thane, is the principal officer in charge of the Land Records Department in the district. Although he is directly subordinate to the Superintendent of Land Records, Nasik Circle, Nasik, in all technical matters, he is under the control of the Collector of Thane and has to carry out all administrative orders of the Collector in connection with survey and land records. The District Inspector of Land Records is both a Survey Officer and a Revenue Officer. He has to supervise the work of measurement, classification etc., done by the field staff. He exercises control over the survey staff, inspects city survey offices, effects all changes in the survey records, advises the revenue officers in all technical matters relating to maintenance of survey records and record of rights. नगरपाल नयन

The staff of the district surveyor and the cadastral surveyors deals with the routine measurement and classification work. Due to the fast pace of industrial development in Thane district, for the work of final measurement of N. A. plots the services of six cadastral surveyors are utilised for measurement of N. A. cases only.

The total strength of the staff in the office of the District Inspector of Land Records, Thane, is 29, of whom twelve are Cadastral Surveyors and seven Maintenance Surveyors.

In addition to the above staff, one Assistant District Inspector of Land Records and two Cadastral Surveyors were deputed to the Land Acquisition Offices under the Bhasta Project and Barvi Project, respectively.

The staff of Circle Inspectors also works under the general control of the District Inspector of Land Records in regard to technical matters.

Maintenance Surveyors : The staff of maintenance surveyors is responsible for the maintenance of city survey record. The maintenance

surveyor is required to maintain the records including record of rights and maps connected therewith. The maintenance surveyors work under the control of the Revenue Officers who are designated as City Survey Officers. However the technical and administrative control over the maintenance surveyors is entrusted to the District Inspector of Land Records.

Circle Inspectors : The Circle Inspectors are entrusted with the work of maintenance of the village records and the records connected therewith. They supervise the work of village officers. The technical work in connection with the maintenance of land records at the villages is supervised by the District Inspector of Land Records.

Gaothan Survey : The work of measurement of *gaothans* is also taken up in the district and a special staff is created for this purpose. The Special District Inspector of Land Records (Gaothan), Nasik, is in charge of the *gaothan* survey of Thane. So far twenty-seven villages in the district have been surveyed, of which sixteen villages are from Bhiwandi taluka.

Consolidation of Holdings : The scheme of consolidation of holdings was applied to this district in 1940. The work of drafting the consolidation scheme in respect of twenty villages was completed. These schemes have already been confirmed and the possession was handed over to the respective *khatedars*.

Resettlement of landless labourers : The settlement of landless agricultural labourers was undertaken during the Third Five-Year Plan. This scheme was included by the Government of India in its Centrally-sponsored programme. The scheme of resettlement of landless agricultural labourers on forest lands is formulated under this programme.

To give shelter to economically backward landless labourers is one of the important items of the 20-Point Economic Programme launched by the Government of India since July 1975. Accordingly the State Government implemented schemes for the benefit of the landless by allotting surplus land to them. The forest land was released for cultivation as per the recommendations of the High Power Committee, and was distributed at the rate of four hectares per family.

The State Government during 1975-76 had fixed a target of constructing 1,000 huts in the district by the end of May 1975. Under this scheme the Government provides free of charge the building material costing Rs. 200. The required land is also made available free of cost. Where the Government contribution falls short the work of building huts was carried with the help of donations from the people. The landless labourers were also provided household utensils and grains.

So far as Thane district is concerned, 3,750 huts were built up to July 1975.

REGISTRATION DEPARTMENT

Functions : The main functions of the Registration Department are :—

- (1) to register documents under the Indian Registration Act (1908) ;
- (2) to register marriages under the Bombay Registration of Marriages Act (1954), the Parsee Marriage and Divorce Act, (1936), and the Special Marriages Act (1954) ; and
- (3) to register births and deaths under the Births, Deaths and Marriages Act (1886).

Organisation : The old *Thana District Gazetteer* published in 1882 gives the details of the Registration department then in existence. It states that in 1882 there were thirteen Sub-Registrars, eight of whom were special officers and five were head clerks of Mamlatdars or Mahalkaris. Since April 1882, instead of Mamlatdar's head clerks, special officers were appointed. In addition to the supervision of the Collector who acted as District Registrar, these officers were subject to the special scrutiny of an Inspector of Registration under the control of the Inspector-General of Registration and Stamps.

At present the department is headed by the Inspector-General of Registration who is assisted in his work by the District Registrars.

The Collector functions of an *ex-officio* District Registrar. For each taluka there is a Sub-Registrar who performs the duties connected with the registration of documents. The Sub-Registrar at district headquarters assists the Collector in his work as District Registrar. Inspectors of Registration are appointed by the Inspector-General of Registration to inspect the sub-registry offices in their division.

Thane district is divided into seven sub-districts under the Indian Registration Act, viz., (1) Thane, (2) Kalyan, (3) Bhiwandi, (4) Murbad, (5) Vasai, (6) Palghar and (7) Dahanu. Each of these sub-districts has a Sub-Registrar and other office staff. There are also four linked sub-registry offices in the district situated at Shahapur, Wada, Virar and Jawhar where Sub-Registrar from a nearby office pays periodical visits.

In 1969 a new taluka viz., Ulhasnagar was formed and the same is attached to Kalyan sub-district for registration purposes. There are no separate sub-registry offices for the talukas of Mokhada and Talasari. They have been attached to the sub-districts of Kalyan and Dahanu, respectively.

Statistics : According to the registration report for 1880-81, of the total number of registered documents during the year, 4,533 were

deeds relating to immovable property and 113 were deeds concerning movable property. Nine wills were also registered. The total value of property involved was Rs. 17,85,570, of which Rs. 14,05,100 accounted for the value of immovable property registered.

During 1975 the total number of documents registered in Thane district was 10,673 with aggregate value of Rs. 7,50,15,738. Of 10,673 documents, there were 185 wills and the fee realised amounted to Rs. 1,895. The total fee realised during 1975 amounted to Rs. 4,89,592.

The following statement shows the income and expenditure of the Registration Department in Thane district since 1946 :—

Year	Registration offices (Number)	Total income (Rs.)	Total expenditure (Rs.)
1946	8	76,479	17,571
1948	9	80,569	28,910
1951	8	72,919	26,284
1953	8	37,589	22,837
1956	8	53,262	25,539
1959	....	Not available	....
1962	....	Not available	....
1965	8	1,81,536	44,304
1968	8	1,84,522	53,935
1971	8	2,15,431	76,255
1975	8	4,98,592	1,13,442

Photo copying system : The photo copying system has been introduced in three sub-registry offices in the district at Thane, Kalyan and Vasai. In these offices documents presented for registration are photographed in Government Photo Registry office, Pune. Photo copies of documents which are received from Government are preserved as permanent record. In all the remaining offices documents are copied by hand.

Registration of marriages : The statistics of marriages registered in Thane district are given below :—

Year	Marriages registered under		Fee (Rs.)
	Bombay Registration of Marriage Act	Special Marriages Act	
1968	875	40	1,263
1971	683	95	9,374
1975	1,252	87	5,256

SALES TAX DEPARTMENT

Sales tax is the most important source of revenue to the State as it contributes to the exchequer much more than any other head of revenue. The Bombay Sales Tax Act (1959) which governs the levy and collection of sales tax replaced the earlier Act from January 1960. Different systems of sales tax were in operation in different parts of the State under the earlier Acts. Under the Bombay Sales Tax Act, 1959, a system which combined the two point levy in respect of certain goods with a single point levy at the first stage in respect of the same goods and single point levy at the penultimate stage of sale by the licensed dealer to a dealer without a licence, was introduced. For the ordinary registered dealer holding neither authorisation nor licence, recognition or permit and who obtained his requirements on payment of tax to other registered dealers, retail sales tax on sales of certain goods as $\frac{1}{4}$ per cent of the turn-over of sales of such goods was introduced.

Besides registration certificate, the Act provides for the issue of other privileged documents, namely, licence, authorisation, recognition and permit. A dealer holding a licence can purchase goods free of general sales tax for re-sale subject to certain conditions. An authorisation enables a dealer holding it to purchase goods free of both the sales tax and the general sales tax for sale in the course of inter-State trade and commerce or in the course of export subject to prescribed conditions. A recognition enables a manufacturer to purchase free of both the sales tax and the general sales tax, certain goods required by him for use in the manufacture of goods for sale and for use in the packing of goods so manufactured. A permit enables a registered dealer who buys for an agreed commission any goods on behalf of a principal mentioned in his books of account, to purchase such goods free of tax under prescribed conditions.

The sale of a large number of goods consisting mostly of articles of consumption by poorer sections of the community is exempted from tax altogether. The rates of tax on sales of goods liable to tax vary according to the cost of goods, the economic conditions of the section of the population which mainly consumes the goods and other factors such as imposition of duty in other States on goods like cloth, sugar, etc.

Organisation : For the purpose of administration the Sales Tax Officer for Thane district works under the Assistant Commissioner of Sales Tax (Administration-cum-Appeals), Central Division, Range I, Nasik.

The Maharashtra Sales Tax Tribunal hears appeals, revisions from assesseees aggrieved against the orders of the Commissioner of Sales

Tax, the Deputy Commissioner of Sales Tax and the Assistant Commissioner of Sales Tax. A reference application can be filed in the High Court on a question of law arising out of orders of the Maharashtra Sales Tax Tribunal.

The following statement gives the number of dealers and the revenue collected in Thane district for a few years from 1946-47 :—

Year	Registered dealers (Number)	Tax collected (Rs.)
1946-47	960	1,22,581
1956-57	2,152	23,64,586
1966-67	4,132	1,12,10,601
1975-76	8,991	8,29,50,114

STAMPS DEPARTMENT

Organisation : The Superintendent of Stamps, Maharashtra State, Bombay, controls the supply and sale of judicial and non-judicial stamps. The Treasury Officers and the Sub-Treasury Officers are in charge of the sub-depots and branch depots of the stamps, respectively. There are in all twenty-four licensed stamp-vendors in the district who are authorised to sell general stamps.

Though the treasury establishment is now separated from the Revenue Department the periodical verification of the stock of stamps is carried out by the Collector and Mamlatdar. Since June 1968 the sub-treasury staff works under the control of the Finance Department though the verification of stamps is done by the revenue authorities as before.

Income : The position of sale of stamps, discount paid and refund on stamps during 1969-70 is shown below :—

Category	Total sale	Discount	Refund
	(Rs.)	(Rs.)	(Rs.)
Judicial stamps	6,42,781.20	10,953.52	62,893.94
Non-judicial stamps	16,78,715.10	26,140.90	4,792.25
	23,21,496.30	37,094.42	67,686.19

MOTOR VEHICLES DEPARTMENT

The Motor Vehicles Department is entrusted with the administration of the Motor Vehicles Act, the Bombay Motor Vehicles Tax Act, the Bombay Motor Vehicles (Taxation of Passengers) Act, and the Maharashtra Tax on Goods (Carried by Road) Act. According to the

provisions of the first Act, all vehicles have to be registered, all drivers have to take out licence, and insurance of the vehicles plying in public places has to be effected. Fees are leviable for registration and for issue of licences and permits.

Regional Transport Authority : The State Transport Authority is set up for the whole State whereas the Regional Transport Authorities look after the work relating to motor transport in the respective regions. The Regional Transport Authority, Thane, deals with the issue of permits to different types of motor vehicles according to the policy laid down by the State Transport Authority. It also performs duties such as grant of authorisation to drive public service vehicles and conductor's licences, launching departmental action against those who contravene any condition of permit, etc.

Regional Transport Officer : The Regional Transport Officer who acts as the secretary and executive officer of the Regional Transport Authority is the competent authority for issue of licenses, registration of vehicles and also prosecuting offence cases committed under the Motor Vehicles Act. He is also competent to cancel, revoke or suspend permits for public carriers, private carriers, and taxi cabs. The Thane Regional Transport Office comprises Thane, Kolaba and Ratnagiri districts. During 1975 there were 46 Motor Vehicles Inspectors including three Regional Supervisors in Thane district.

Liaison with Police Department : The department works in co-operation with the Police Department in respect of matters relating to motor vehicles. The Police department carries out periodical checking of motor vehicles and detects offences under the Motor vehicles Act.

Bombay Motor Vehicles Tax Act : Under the Bombay Motor Vehicles Tax Act, taxes are levied according to the type of vehicles and their laden and unladen weight. The department also administers the provisions of the Bombay Motor Vehicles Act, 1958, and the Maharashtra Tax on Goods (Carried by Road) Act, 1962.

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CHAPTER 12 — LAW, ORDER AND JUSTICE

POLICE DEPARTMENT

THE MAIN FUNCTIONS OF THE POLICE ARE PREVENTION AND DETECTION of crime and the maintenance of law and order. Besides these, they have to apprehend offenders, escort prisoners and treasure, prosecute criminals and control and regulate traffic.

A number of factors, which are beyond the scope of this study, have given rise to the law and order problems in Thane district, as in other areas of the State. This has necessitated the increase in the police force during the last about twenty-five years. Accordingly the police organisation in Thane is strengthened by a District Superintendent of Police, two Additional District Superintendents of Police, six Deputy Superintendents of Police, twenty-five Police Inspectors and a big force of other staff.

Organisation : The direction and supervision of the whole police force in the State vests in the Inspector-General of Police, who is assisted by the Additional Inspector-General of Police, Deputy Inspector-General of Police and other officers of the Indian Police Service.

The direction and regulation of the police force throughout the district are vested in the District Superintendent of Police who has full control over the internal organisation and discipline of the force under him. His primary duties are to keep the force under his control properly trained, efficient and contented and to ensure by constant supervision, the proper and effective prevention, investigation and detection of crime in his district. The District Superintendent of Police, Thane, is assisted in his work by two Additional District Superintendents of Police. The district is divided into four sub-divisions, viz., Thane, Bhiwandi, Kalyan and Dahanu, each under the charge of a Deputy Superintendent of Police (Sub-Divisional Police Officer) who is responsible for maintenance of law and order in his sub-division.

At the district headquarters, the Superintendent of Police is assisted by the Home Police Inspector who works as Personal Assistant to the Superintendent of Police and supervises the work of the whole office.

Police Stations : In the year 1904, the then Thane district had fourteen stations and forty-four out-posts. In 1911, however, the strength of police stations was reduced to five. The position was again changed in 1921 when the number of police stations was raised to twenty-four and that of out-posts to thirty-five.

The following statement shows the position for some years beginning with 1946 :—

Year		Number of police stations	Out-posts
1946	...	21	31
1951	...	28	37
1956	...	31	36
1961	...	27	33
1966	...	Not available	
1971	...	38	39
1976	...	38	42

There were four city police stations in the district at Thane town, Kalyan town, Pachpakhadi and Bhiwandi placed in charge of an Inspector of Police. The other police stations are controlled by the Police Sub-Inspector. Besides, there were four control rooms at Thane, Kalyan, Ulhasnagar and Bhiwandi.

Anti-Corruption and Prohibition Intelligence Bureau : With a view to eradicating the evil of corruption and ensuring an effective implementation of prohibition policy, the Anti-Corruption and Prohibition Intelligence Bureau has been created under the control of Deputy Inspector-General of Police who is designated as Director, Anti-Corruption and Prohibition Intelligence Bureau, Maharashtra State, with headquarters at Bombay.

The anti-corruption unit at Thane consists of one Police Inspector, two Sub-Inspectors, two Head Constables and four Police Constables.

State Reserve Police Force : With a view to providing the armed force which may be required to deal with any serious disturbances or other similar emergencies, the State Reserve Police Force, trained more or less on military lines and equipped with adequate weapons, has been organised under the Bombay State Reserve Police Force Act, 1951, and stationed in groups at important centres in the State. Each group is under the control of the Commandant (of the rank of a Superintendent of Police) assisted by the necessary staff of officers of different ranks. These groups are provided with wireless and motor transport sections.

Training College : The Police Training College, Nasik, provides the initial training for officers of and above the rank of a Sub-Inspector and also the refresher training for qualified Head Constables in the duties of police Sub-Inspector.

Women Police Branch : Women police branches exist in almost all the districts of the State. The main functions of this branch are

to help in the recovery of abducted women, to attend to the convenience and complaints of female passengers at important railway stations, to apprehend and search female offenders, to help in the administration of the Bombay Children Act and the Suppression of Immoral Traffic in Women and Girls Act, to man the police telephone exchanges, to keep vigilance at places of worship or public entertainment, etc.

The women police force at Thane consists of one Woman Sub-Inspector, two Women Head Constables and sixteen Women Police Constables.

Motor Transport : A motor transport section for the whole State under the control of the Superintendent of Police, Motor Transport, is organised for maintaining a fleet of motor vehicles and water-craft for police duties. It consists of ; (i) a District Motor Transport section at the headquarters of each district and each State Reserve Police Force group ; (ii) Central Motor Transport Workshop together with mobile units at Pune, Aurangabad and Nagpur ; and (iii) a Mobile Repair Unit for Police Water Craft with headquarters at Thane.

The Thane district has a fleet of twenty-nine motor vehicles including two motor cycles.

Village defence parties : The village defence parties are chiefly meant for defence against depredations of dacoits and other types of criminals, for the protection of persons, the security of property and public safety. Out of 1,595 villages in the district, 580 villages have formed village defence parties. The number of members enrolled in village defence parties at the close of the year 1968 was 10,155. In the district there is a district village defence office, besides 26 taluka village defence offices and ten joint taluka village defence offices.

Prosecuting staff and prosecution : The senior-most Police Prosecutor stationed at the district headquarters supervises and co-ordinates the work of all Police Prosecutors. Each Police Prosecutor is entrusted with the work of prosecution of criminal cases in one or more courts. The total number of cases conducted by the prosecuting staff in 1968 was 11,803, of which 8,000 cases ended in conviction. During 1974 there were seventeen Police Prosecutors who conducted 7,695 cases, of which 4,055 resulted in conviction. The percentage of conviction to total number of decided cases was 52.

Strength : The *Thana District Gazetteer* published in 1882 gives the police strength of Thane district in 1880 as 842. This figure included one District Superintendent, two subordinate officers, 150 inferior officers and 689 foot constables. The distribution of police personnel in the district in the years 1903, 1911 and 1912 is shown in table No. 1.

Table No. 2 shows police strength in Thane district for a few years since 1960.

In the year 1946 Thane district was included in the northern range of the Bombay State while it was listed in the C.I.D. Range in 1951. From 1957 onwards it was included in the Bombay range of police.

The proportion of police to area and population of the district for a few years has been given below :—

Year	Proportion of police to	
	Area	Population
1946	... 2.32 square miles	671
1951	... 2.52 square miles	976
1956	... 1.40 square miles	653
1961	... 1.56 square miles	703
1966	... 3.05 square kilometres	549
1974	... 2.3 square kilometres	547

Offences : The following statement shows the crime in Thane district for a few years :—

Period	Murder	Culpable homicide	Grievous hurt	Dacoities and robberies	Other offences	Arrests	Convictions
1845 to 1849 ..	104	22	241	650	43,088	77,305	24,963
1874 to 1880 ..	120	38	189	460	38,493	67,414	36,448

The total number of offences reported during 1900 was 3,350 as against 3,546 in 1921. The following statement shows cognisable crime in the district from 1960 :—

Year	Cognisable crime (I to IV Class)
1960	... 1,868
1965	... 21,394
1970	... 18,530
1974	... 22,990

HOME GUARDS

The Home Guards organisation is a voluntary ~~one and~~ comprises men and women who undertake to receive specialised training besides their normal duties and agree to place their services at the disposal of

the State, during emergency. The functions vary according to local circumstances but generally they are to assist in maintaining law and order and acting as auxiliaries in respect of fire, rescue communications, medical and other essential services during times of natural calamities.

The organisation has its goal, the dual task of inculcating a sense of civic duty and self-sacrifice in citizens in times of emergency or calamities.

Organisation : Prior to its inception, the Home Guards organisation was known as Civic Guards. The nature of the duties of this Civic Guards was the same like the present organisation. To-day the organisation is under the command of the Commandant-General who is an honorary officer and is responsible to the Government in all matters concerning the organisation. At the district level it is controlled by the Commandant who is assisted by officers such as Second-in-Command, Quarter Master, Officer-in-Charge, etc. The taluka units are under the Taluka Commandants who function under the District Commandant.

Training : The Home Guards are trained in foot drill, musketry, traffic duties etc. to enable them to help the Police in times of emergency. Besides these, they are also trained in motor-driving, fire-fighting, etc.

The Central Training Institute located in Bombay imparts advanced training to the members of the Home Guards organisation in specialised subjects like fire-fighting, rescue, first aid, etc. as facilities of such subjects are not available in the district. In the absence of establishment of District Training Centre in any district on the pattern suggested by the Government of India, training to rural home guards is conducted in training camps arranged at suitable local places.

Strength : In so far as Thane district is concerned, in 1951 the home guards units were located at Thane, Kalyan, Bhiwandi, Palghar, Dahanu, Vasai, Shahapur, Vada, Jawhar and Khandivali. In the same year the total strength of Home Guards was 334, of which 111 were trained. The following statement shows the number of Home Guards in Thane district for a few years :—

Year	Total No.	Year	Total No.
1960	... 303	1970	... 1,900
1963	... 2,210	1972	... 2,004
1965	... 1,703	1974	... 1,804
1968	... 1,751		

Out of 1,804 home guards during 1974, 587 were in rural areas of the district.

Advisory Committee : With a view to review the working of Home Guards from time to time and to suggest ways and means for its efficient functioning, the Government appointed a Central Advisory Committee for the entire State and a District Advisory Committee for each district. The Committee at the district level is headed by the Collector with official and non-official members.

Payment : The Home Guards organisation being a voluntary one in concept, does not envisage the payment of regular salary to its members. However with a view that they should not be put at a loss by incurring sundry expenses during the course of their training they are paid an allowance at the rate fixed from time to time.

JAIL DEPARTMENT

The Superintendent, Thane District Prison, is vested with the executive management of the prison in all matters relating to internal discipline, economy, labour and punishment. The Superintendent is assisted by the executive, medical, ministerial and technical staff.

Classification : There is one district prison and eleven taluka sub-jails in Thane district. The prison at Thane has been classified as a District Prison (Class I). This prison is mainly meant for the confinement of the under-trial prisoners and prisoners sentenced up to five years. The eleven taluka sub-jails in the district are located at Vasai, Bhiwandi, Dahanu, Jawhar, Kalyan, Mokhada, Murbad, Palghar, Shahapur, Tansa and Wada.

Accommodation : The daily average number of prisoners in Thane district from 1895 to 1921 is shown in the following statement :—

		Daily average number in					
		1895	1900	1905	1910	1915	1921
Thane Special Prison	..	719	953	599	606	397	678
Lock-ups	..	10	37	15	31	13	24
Total	..	729	990	614	637	410	702

Medical staff : A full-time medical officer on deputation from the Medical Department looks after the hospital at the Thane District Prison.

Classification of prisoners : Prisoners are classified as class I or class II by the Court after taking into consideration their status in society and also the nature of offence. They are further classified as casual, habitual, under-trial and security or detainee. There is no

separate class of political prisoners but certain rules which do not allow the grant of facilities and privileges on the score of length of sentence are relaxed in their favour under the specific orders of Government. Prisoners are also grouped as short-termers, medium-termers and long-termers. Prisoners with a sentence upto three months are classed as short-termers, those sentenced up to a period of three months and above but up to two years are classified as medium-termers, and those sentenced up to two years and above are classified as long-termers. Headquarters sub-jails are meant for the confinement of short-term prisoners and under-trial prisoners only.

On admission, a prisoner is examined by the medical officer and is classified as fit for light, medium and hard labour. Prisoners are employed in prison industries, prison farms and prison maintenance services. Vocational classes are also organised in the prison. Medium-term and long-term prisoners as also security and under-trial prisoners who volunteer to work are paid as per the prison rules.

Release on parole and furlough : A prisoner is released on parole by the Divisional Commissioner in the event of serious illness or death of any member of the family or nearest relative of the prisoner or any other cause deemed sufficient.

Remission of sentence : The prisoners are granted remissions on various grounds such as ordinary, annual good conduct, blood donation, conservancy work and physical training. State remission is awarded by the Government on certain occasions.

Board of Visitors : A board of Visitors comprising both official and non-official visitors is appointed. There are ordinarily four non-official visitors for the headquarters sub-jail, out of whom two are members of the Maharashtra Legislature and two are nominated by Government of whom one is a lady-visitor. The appointment of non-official visitors other than members of the Maharashtra Legislature is made for a period not exceeding three years. Persons, who in the opinion of Government, are interested in prison administration and are likely to take interest in the welfare of prisoners both while they are in prison and after their release are nominated by Government on the Board of Visitors on the recommendation of the District Magistrate concerned and the Inspector-General of Prisons. The Chairman of the Board of Visitors who is usually the District Magistrate arranges for weekly visit to the prison by one of the members of Board. Quarterly meetings of the Board are also convened. Non-official visitors are also allowed to visit the prison on any day and at any time during the day in addition to the weekly visit arranged by the Chairman.

In bigger jails a committee of prisoners is formed for each year by the prisoners themselves, and the Jailors and the Superintendent consult

the committee which is known as Jail Panchayat Committee in matters of discipline and general welfare of prisoners.

Education : Literacy classes are conducted for prisoners and necessary facilities are provided to prisoners at Government cost. Prisoners who desire to pursue higher studies are also extended necessary help. Education in the science of ethics and good citizenship is imparted at the District Prison.

Recreational and cultural activities : Recreational programmes like physical training parades, documentary and full length films, folk dances, *kalapathak* and games are organised for the entertainment of prisoners generally once in a month. Prisoners are allowed to celebrate the days of national importance in a suitable manner. On these occasions, they are allowed to stage dramatic performances. Besides, newspapers are also supplied to the prisoners.

Emphasis is always laid on the maintenance of good discipline in the prison. Positive and constructive discipline is treated as the basic foundation for wholesome changes in the attitude of prisoners.

DIRECTORATE OF SOCIAL WELFARE (CORRECTIONAL ADMINISTRATION WING AND NON- CORRECTIONAL WING)

Organisation : The Department of Social Welfare was formed in 1957 after amalgamating the offices of the Director of Backward Class Welfare and the Chief Inspector of Certified Schools.

The office of the Director of Social Welfare has been divided into two wings, one dealing with backward class welfare and the other dealing with correctional work and the work relating to the welfare of women under the social and moral hygiene programme and of the physically handicapped. In the correctional wing, the Director of Social Welfare is assisted by the Deputy Director of Social Welfare (Correctional Administration) who is also *ex-officio* Chief Inspector of Certified Schools and Chief Inspector of Certified Institutions.

At the divisional level the department has regional officers called Divisional Social Welfare Officers, each posted at the headquarters of revenue division. They are entrusted with administrative and supervisory work relating to all subjects dealt with by the Directorate of Social Welfare. For correctional and allied work they have been given the assistance of an Inspector of Certified Schools.

At the district level, the correctional wing has no elaborate administrative machinery save superintendents of the institutions posted in the district wherever there are institutions. The District Social Welfare Officer is primarily responsible for welfare of backward classes.

The correctional administration wing is responsible for the implementation of the Bombay Children Act, 1948. Broadly speaking, this Act provides for the protection of destitutes, neglected and victimised children below the age of 16 and seeks reformation of delinquent children through training provided in remand homes and certified schools.

The Bombay Probation of Offenders Act, 1938, provides for the probation of offenders in lieu of jail punishment in suitable cases recommended by the officers appointed by this department under the Act. Its jurisdiction extends over the districts of western Maharashtra only. The Bombay Habitual Offenders Restriction Act, 1959, is applicable to western Maharashtra only and deals with the prevention of crime and treatment of offenders. Such habitual offenders are sent to industrial and agricultural settlement for their rehabilitation in appropriate cases. The Bombay Borstal Schools Act, 1929, is applicable to western Maharashtra and deals with offenders between the ages of 16 and 21 committed to the Borstal School, Kolhapur. The provisions of the Suppression of Immoral Traffic in Women and Girls Act, 1958, are implemented by the Police Department. However the Department of Social Welfare is responsible for starting the protection homes and supervising the administration of these homes provided under the Act. For this purpose the Chief Inspector of Certified Schools acts as the Chief Inspector of the Protective Homes. At present there is only one such home at Chembur, Bombay.

After-care Programme : Besides implementing the activities as above the Directorate of Social Welfare has undertaken the following after-care programmes pertaining to the welfare of children and women :—

The Maharashtra State Probation and After-Care Association is a federal body devoted to the care and after-care programmes relating to children. Wherever the Bombay Children Act has been applied, remand homes are sponsored by the District Probation and After-Care Associations which are affiliated to this body. In the after-care field the Association maintains after-care hostels for boys and girls released from certified schools.

Social and Moral Hygiene Programme : The object of the social and moral hygiene programme is to take care of women's welfare. It envisages the opening of reception centres and State homes for women either released from the correctional institutions or seeking shelter on reference. Eight reception centres and three State homes have been functioning in the State of Maharashtra for girls and women in a moral danger, destitute women or women released from institutions.

The department is also in charge of work relating to the education and rehabilitation of the physically-handicapped persons. At the head-

quarters, the work is organised by an officer designated as the Deputy Director, Education and Rehabilitation of Handicapped. The department runs schools for the various categories of the handicapped and also sheltered workshops for their sake as well as homes for crippled children for their treatment and education. It also aids voluntary agencies doing work in this field. The Deputy Director, Education and Rehabilitation, is assisted by four inspectors in this work.

The department also accords grants to dance, drama and music institutions and also to other social welfare institution such as rescue homes, *mahila mandals*, *akhadas*, *kustigir parishads*, *Bharat Sevak Samaj*, etc. As a preventive measure juvenile guidance centres have been organised in localities which are the breeding places of delinquency. In order to promote proper community living among the youth, youth clubs have been organised.

Remand Home : A remand home has been started at Bhiwandi in the district for the reception of children coming under the purview of the Bombay Children Act. The District Probation and After-Care Association, Bhiwandi, is in charge of this institution.

The names of other such institutions in Thane district are given below :—

- (1) Government Beggars' Home for Males, Virar
- (2) Beggars' Home, N. M. Mental Hospital, Thane
- (3) Government Certified School, Jambul
- (4) Remand Home, Bhiwandi
- (5) Deaf and Dumb School, Thane
- (6) Shri Krishna Seva Mandal, Ulhasnagar
- (7) Dhyanmata Sadan, Talasari
- (8) Dinkar Sangeet Vidyalaya, Kalyan.

JUDICIARY DEPARTMENT

The old *Thana District Gazetteer* gives developmental aspects of the judicial system then prevalent in the district. The same account is given below :—

“ In 1774, on the conquest of Salsette, Karanja, Hog Island, and Elephanta, a resident and factors were appointed for Salsette and Karanja, and a resident for Hog Island and Elephanta. The Government provided that ‘the residents or chiefs should investigate all except capital offences and misdemeanours, through the means of two sensible and respectable men of each caste who were to be selected and appointed for the purpose.’ Disputes regarding property were to be decided by arbitration. The arrangement continued till 1799, when an officer styled Judge and Magistrate with civil, criminal, and police jurisdiction was appointed in place of the residents and factors. The Judge had under him judicial officers

styled native commissioners. In 1803 the jurisdiction of the Judge and Magistrate of Thana was extended to Bankot and its dependencies. In 1817, on the overthrow of the *Peshwa*, the district of Balapur, Atgaon, and Kalyan, and all territories to the north as far as the Daman river, lying between the Sahyadris and the sea, were annexed to the *zilla* court of Salsette whose title was changed into the *zilla* court of the Northern Konkan. In 1818 the office of District Magistrate was transferred from the district judge to the Collector. In 1819 the jurisdiction of the Judge of the North Konkan was extended south as far as the Apta river. In 1830, when three northern sub-divisions of Ratnagiri were placed under the control of the Thana District Judge, Ratnagiri was for purposes of civil and criminal justice, reduced to a detached station of the Thana district with a senior assistant and sessions judge. Ratnagiri remained a detached station under Thana till 1869."

Organisation : At present the District and Sessions Judge is the head of the Judicial department in the district. The Collector from the executive side continues to be the District Magistrate and the Deputy Collectors and Mamlatdars are vested with magisterial powers. But these powers are limited to chapter cases, and none of them tries criminal cases. The District Magistrate has no administrative control the entire district with unlimited pecuniary jurisdiction.

The District and Sessions Judge is assisted by Assistant Judges and Additional Sessions Judges. They have jurisdiction over the entire district. They attend to civil and criminal work both original and appellate. The Civil Judge (Senior Division) attends to civil suits in the entire district with unlimited pecuniary jurisdiction.

There were fourteen Civil Judges (Senior Division) and First Class Magistrates in the district in the year 1961. They were posted at different taluka places. There were also seven First Class Judicial Magistrates dealing with all cases, private and police, arising in the area of their jurisdiction.

The following statistics show the number of cases decided in both the courts from 1950 onwards for a few years :—

Year	Civil				Criminal			
	Original		Appellate		Original		Appellate	
	Regular	Miscellaneous	Regular	Miscellaneous	Regular	Miscellaneous	Regular	Miscellaneous
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1950 ..	4,476	4,442	261	25	87	2	177	67
1960 ..	2,978	3,222	352	263	50,641	108	263	153
1970 ..	2,707	1,103	378	98	55,877	1,059	155	78

TABLE No. 1—STATISTICS OF POLICE IN THANE DISTRICT

Particulars (1)	Year (2)	Inspectors (3)	Sergeants (4)	Sub- Inspectors (5)	Chief Constables (6)	Head Constables (7)	Constables (8)	Total (9)	Guards	
									Officers (10)	Men (11)
At fourteen police stations	.. 1903 ..	2	..	..	11	36	112	161	..	..
	1911* ..	1	1	9	..	24	166	201	1	3
	1921* ..	..	..	24	..	193	364	581	..	..
At forty-four out-posts	.. 1903 ..	..	..	..	..	39	136	178	..	..
	1911* ..	..	..	..	..	39	143	182	..	..
	1921* ..	..	..	..	..	77	55	132	..	..
At district headquarters	.. 1903 ..	..	..	..	..	15	61	76	4	11
	1911 ..	1	..	3	..	12	52	68	..	..
	1921 ..	2	..	3	..	30	131	166	..	..
At taluka headquarters	.. 1903 ..	..	..	..	..	46	190	236	21	83
	1911 ..	4	..	4	..	63	209	290	..	..
	1921 ..	4	1	2	..	..	..	7	..	..
Reserve	.. 1903 ..	..	..	..	1	16	108	125	..	..
	1911 ..	..	..	1	..	12	150	163	..	..
	1921 ..	..	..	3	..	..	130	133	..	..
Total ..	.. 1903 ..	2	..	..	2	152	610	776	25	94
	1911 ..	6	1	27	..	150	720	904	1	3
	1921 ..	6	1	32	..	300	680	1,019	..	..

*During 1911 and 1921 the number of police stations and out-posts was 5 and 44, 24 and 35, respectively.

TABLE NO. 2—STRENGTH OF POLICE FORCE, THANE DISTRICT

Particulars	1960	1966	1970	1974
(1)	(2)	(3)	(4)	(5)
Superintendents	2	2	2	3
Assistant Superintendent ..	1	..	1	1
Deputy Superintendents ..	2	3	2	5
Inspectors	8	9	10	26
Sub-Inspectors	66	52	51	136
Jamadars .. ..	..	20	22	53
Head Constables	499	371	425	952
Constables	1,810	1,462	1,739	3,304
Total ..	2,388	1,919	2,252	4,480

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CHAPTER 13 — OTHER DEPARTMENTS

PUBLIC WORKS DEPARTMENT

THE PUBLIC WORKS DEPARTMENT IN THANE DISTRICT DEALS with (1) roads and buildings, (2) construction and maintenance of electric installations in Government buildings and (3) ports.

The Thane Division which is a permanent division is under charge of the Executive Engineer, under the control of the Superintending Engineer, Nasik Circle. The main function of this division is to look after the construction of new roads and buildings in its jurisdiction, maintenance of National Highways and State Highways and State Government buildings in the district.

The jurisdiction of the Thane division extends over the entire district and a part of Kulaba district as far as the Bombay-Pune road is concerned. For the purpose of administrative control, this division is divided into six sub-divisions, viz., Thane, Kalyan, Bhiwandi, Jawhar, Panvel and Soil testing sub-division, Thane. The Deputy Engineers are in charge of these sub-divisions. Details of the sub-divisions are as under :—

(1) *Thane sub-division*.—With headquarters at Thane the Deputy Engineer looks after the Government buildings in Thane and Kalyan talukas.

(2) *Bhiwandi sub-division*.—This sub-division comprises Bhiwandi, Shahapur and Vasai talukas of the district with headquarters at Bhiwandi. In addition Government buildings in Bhiwandi, Shahapur and Vasai talukas are also under the charge of the Deputy Engineer for maintenance.

(3) *Jawhar sub-division*.—The headquarters of this sub-division is located at Jawhar, and the Deputy Engineer is responsible for the work of maintenance, new construction of buildings, as well as roads in Wada, Jawhar, Dahanu, Palghar and Talasari talukas.

(4) *Kalyan sub-division*.—The Deputy Engineer, with headquarters at Kalyan, is entrusted with the work of constructing Vaishakhare-Savarne-Malshej Ghat road which will be the nearest route to Ahmadnagar and Aurangabad districts from Bombay. In addition to this work, the maintenance of Kalyan-Murbad road and maintenance work of buildings in Murbad taluka is also entrusted to this sub-division.

(5) *Panvel sub-division*.—The Bombay-Pune road from mile No. 23/1 to mile No. 66 which passes through Thane and Kulaba districts is under the charge of this sub-division.

(6) *Soil testing sub-division*.—For administrative control this sub-division is attached to the Thane Buildings and Communications Division. The work of testing from all buildings and communications divisions in the State is entrusted to this sub-division.

Electrical Branch : The main functions of the electrical organisation are execution of Government work in respect of electrical works and maintenance of electrical installations and equipment in Government buildings, and carrying out advisory and executive duties pertaining to generation and use of electricity, and administration of the Indian Electricity Act, 1956.

The electrical organisation is bifurcated into two wings at the divisional level, viz., executive wing under the control of the Public Works Department and inspection wing in charge of the Industries and Labour Department. There are five executive divisions having headquarters at Bombay, Thane, Aurangabad, Pune and Nagpur. Thane district is under the jurisdiction of the Deputy Engineer, Thane Electrical sub-division who is responsible to the Executive Engineer, Thane Electrical Division.

Ports : For administrative purposes, the ports along the west coast of the State have been classified into five groups. Each group is headed either by a Port Officer or Assistant Port Officer. The minor ports in revenue limits of the district are : (1) Dahanu, (2) Tarapur, (3) Nawapur, (4) Satpati, (5) Vasai, (6) Arnala (including Dantivare), (7) Kelva-Mahim, (8) Uttan, (9) Bhiwandi, (10) Kalyan and (11) Thane. All these ports are included in the Bandra group of ports and are looked after by the Assistant Port Officer, Bandra. At each port there is an office of the Assistant Port-Supervisor. The Assistant Port Officer, Bandra, is assisted by the Port Supervisor stationed at Satpati.

The Assistant Port Officer, Bandra, has been declared Conservator of Bandra Group of Ports under the Indian Ports Act, 1908. His duties among other things include administration of Indian Ports Act, 1908, the Landing and Wharfage Fees Fund Act and the Indian Merchant Shipping Act ; attending queries of foreign going ships ; looking after the port assets ; checking and supervising port boundaries, etc.

As the loading and unloading facilities at these ports are inadequate, goods are loaded and unloaded at the shore according to the tide. In respect of passenger traffic it is handled by the private agencies. Most of ferry services are auctioned by the Zilla Parishad and controlled by the department.

The Government jetties are provided at Dahanu, Vasai, Bhiwandi, Kalyan and Thane, their total number being 13. Of these, four are located at Thane port for landing the cargo. There are no private jetties at these ports.

The following statement shows the quantity of cargo exported and imported during five years from 1965-66 to 1969-70 at the minor ports belonging to the Bandra group :—

Name of port*	Quantity (in Tons)	
	Export	Import
(1)	(2)	(3)
Dahanu	49,311	4,470
Tarapur	78	2,763
Satpati	Nil.	2,349
Kelwa-Mahim	Nil.	1,333
Dantiware	1,70,487	2,569
Arnala	2,52,143	3,869
Vasai	945	7,000
Kalyan	32,342	27,073
Thane	Nil.	2,92,988

*Export or import trade was not handled at Nawapur, Uttan and Bhiwandi ports.

The following statement gives total number of passengers embarked and disembarked at the ports by ferry services (sailing vessels) from 1965-66 to 1970-71 :—

Name of port	Number of passengers embarked and disembarked	Average per year (embarked and disembarked)
(1)	(2)	(3)
Dahanu	22,07,000	4,40,000
Tarapur	N.A.	N.A.
Nawapur	3,20,000	64,000
Satpati	7,40,000	15,000
Kelwa-Mahim	3,32,000	66,000
Dantiware	1,94,600	39,000
Arnala	2,59,800	52,000
Uttan	2,88,000	58,000
Vasai	9,71,700	2,00,000
Kalyan	97,200	15,000
Thane	Nil.	Nil.
Bhiwandi	44,800	9,000

N.A. = Not available.

AGRICULTURE DEPARTMENT

Organisation : The activities pertaining to agriculture in the district are under dual control of the State Government and the Zilla Parishad. The activities in respect of plant protection, integrated oil-seed

development, mechanical cultivation, blasting and boring, and seed multiplication farm are entrusted to the Agriculture department in the State sector while the rest of the activities are looked after by the Zilla Parishad.

In the district sector, the Agricultural Development Officer looks after the various activities of agriculture department of the Zilla Parishad. He acts as a secretary of the agriculture committee of the Parishad. The Agricultural Development Officer is responsible to the Chief Executive Officer but advice of the Superintending Agricultural Officer and other authorities in the State sector prevails in technical matters.

ANIMAL HUSBANDRY DEPARTMENT

Organisation : With the inception of the Zilla Parishad in 1961, the animal husbandry activities in the district are looked after by the Animal Husbandry Officer who is responsible to the Agricultural Development Officer. In the technical sphere, the advice of the Director of Animal Husbandry, who heads the department at the State level, prevails.

Treatment to sick animals, control of cattle epidemics, castration and breeding are some of the important functions of the department. The department also advises the people in hygienic methods of animal management and for propaganda purposes, participates in cattle and poultry fairs and shows held at various places in the district.

In 1961 there were eleven veterinary dispensaries and twenty veterinary aid centres in the district. This number rose to 12 and 38, respectively in the year 1971-72. The work of treating and vaccinating animals and poultry birds against various diseases is carried out by the Veterinary Officers with the help of stockmen attached to these dispensaries and centres.

The following statement gives the statistics of the activities of the department pertaining to treatment and castrations :—

Particulars	Year	
	1962-63	1966-67
(1) Animals treated—		
Bovine	10,150	18,236
Equine	1,724	1,899
Others	3,445	5,833
Total	15,319	25,968
(2) Castrations performed—		
Bovine	1,680	2,790
Equine .. ..	....	....
Others	12	37
Total	1,692	2,827

During 1968-69, 40,758 animals were treated in the district. This figure rose to 78,480 in 1974-75. During 1968-69 there were 41 bull-centres with 43 bulls. In 1974-75 the number of artificial centres was 25, in which 687 animals were inseminated.

There is one Lokmanya Goshala at Dombivali in Kalyan Panchayat Samiti where cows of good quality are located. Breeding bulls of *Gir* quality are also supplied to the farmers at concessional rates by the *goshala*. In 1968-69 the *goshala* received Rs. 2,000 as grant-in-aid from the Zilla Parishad.

The revenue receipts of Animal Husbandry Department in 1970-71 were Rs. 10,000. The expenditure during the same year amounted to Rs. 83,800.

FOREST DEPARTMENT

Organisation : The Chief Conservator of Forests with headquarters at Pune is the head of the department. He is assisted by Conservators of Forests placed in-charge of circles. The Conservator of Forests is assisted by Divisional Forest Officers and Sub-Divisional Forest Officers who look after the divisions and sub-divisions, respectively. The divisions are divided into sub-divisions and the latter into ranges, each placed in-charge of Range Forest Officer. The ranges are further sub-divided into rounds and rounds into beats, placed in-charge of Round Officers and Beat Guards, respectively.

There are three territorial divisions in Thane district, viz., Thane, Dahanu and Shahapur, and one functional division, viz., Integrated Unit at Dahanu Road. Thane and Shahapur divisions contain seven ranges each and that of Dahanu ten ranges. The extent of forest area in these three divisions during 1975-76 was as under :—

Name of Division	Reserved Forests (square kilometres)	Protected Forests (square kilometres)	Un- classified	Total (square kilometres)
(1)	(2)	(3)	(4)	(5)
Thane	832.44	310.55	....	1,142.99
Shahapur	1,086.52	402.68	....	1,489.20
Dahanu	855.28	266.09	..	1,151.37
Borivli National Park (part)	22.81	08	10.27	33.16
Total	2,827.05	979.40	10.27	3,816.72

More than 90 per cent of the forests in Thane district belong to the moist teak bearing forest type. Within the type considerable local

variation in the composition and quality of the crop is observed. The reserved forests in all the three divisions in the district generally do not occur in large compact blocks but are mostly in scattered blocks, surrounded by protected forests or private forests as well as cultivated lands or revenue waste lands. The biggest block of forests is 437 square kilometres in extent, while the smallest is only 0.182 square kilometres. These forests are mostly hilly and at places precipitate. The hills are the outer ranges of the western *ghats* which run around the eastern boundary.

Functions : The following are the duties of the Divisional Forest Officer, Sub-Divisional Forest Officer, Range Forest Officer and Foresters :—

Divisional Forest Officer.—The Divisional Forest Officer is directly responsible for exploitation and regeneration of forests according to the sanctioned working plans. He conducts sales, enters into contract, supplies material to departments and the public, realises revenue and controls expenditure under instructions from the Conservator of Forests.

Sub-Divisional Forest Officer.—The Sub-Divisional Forest Officers attached to a division, assist the Divisional Forest Officer in the work of inspection and supervision of various kinds of silvi-cultural works requiring technical knowledge besides attending to other duties entrusted by the Divisional Forest Officer. He also deals with the forest offences having power to compound the same.

Range Forest Officer.—Range Forest Officer, in-charge of a range, is responsible for carrying out works according to the orders of the Divisional Forest Officer or Sub-Divisional Forest Officer. He is entrusted with marking and reservation of trees, felling of trees and its transport to sale depot, sowing, planting, tending and other silvicultural operations, construction of roads, buildings and wells according to the sanctioned plans and estimates, protection of forests and investigation of forest offences, supervision on removal of forest produce by purchasers and by right and privilege holders and issue of forest transit passes and permits.

Foresters.—The duties of the Foresters include protection of forests, detection and investigation of forest offences, issue of forest transit passes and permits, collection of revenue from permits and compensation in offences, marking of trees as per the prescriptions laid down in the working plan in coupes given out to contractors for cutting, inspection and protection of the forests and guidance to forest guards and supervision over their day-to-day work.

Classification of forests : Under Indian Forests Act of 1927, forests are divided into two categories, viz., reserved and protected forests.

Before the forests are classified, they are subjected to regular settlement by a Forest Settlement Officer who enquires into all public and private rights connected with forests. In case of reserved forest, the existing rights are either settled, transferred or commuted. In case of protected forests the rights are clearly recorded and regulated. The forests are managed according to the prescription of the working plan which lays down the details of scientific management of a forest for a prescribed number of years. Before a working plan is drawn up, a survey is made of the growing stock, at times, by actual enumeration and an analysis is made of the stems of standing trees to determine the rate of growth of the principal species with special reference to the soil and the climatic conditions of each locality. On the basis of the data thus collected, plans are drawn up for felling, regeneration, silvicultural treatment and protection of forests. Provision is also made for the due exercise of the rights and privileges of people. The revision of the working plan is done by the Divisional Forest Officer, Working Plan, Thane under directions from the Conservator of Forests, Working Plan Circle, Pune. The reserved forests in Thane district, at present, are being worked as per the plan drawn out.

The protected forests at present are being worked under the working plan for Thane woodland. In the revised plan it is proposed to amalgamate compact blocks of well-wooded areas not honey combed with the cultivation for conversion into reserved forests and will be brought under intensive forest management. Wooded areas honey combed with cultivation will either be developed with farm forestry or handed over to the Revenue department for utilizing the lands for cultivation depending on the conditions of the forests.

Working of the Department : The main functions of the Forest department are exploitation, regeneration and protection of forests according to the sanctioned working plans and other orders, conducting of sales, entering into contracts and supply of material to Government departments and the public. In addition, a number of schemes under the Five-Year Plans are executed by this department in the three divisions of the district. The department has to look after the regeneration and maintenance of the forests. As the trees from the annual coupes are cut, the areas are regenerated with fresh crop. Care and precautions are taken against damages by man, animals, insects, other pests, adverse climatic influences, and other inanimatic agencies. Precautionary measures like fire tracing, the boundaries of forests along the roads and paths are undertaken by the department. Rigid patrolling and vigilant watch against unauthorised felling and removal of forest produce by the villagers is resorted to. Offenders in respect of illicit cutting, unauthorised cultivation, grazing and other damages are dealt

with as per the provisions of the Indian Forest Act and rules made thereunder.

Exploitation : Forest products in the district could be divided into two main classes, i.e., major and minor. Major forest products are timber, fire-wood and charcoal; while the minor forest products are grass, *apta*, *tembhurni*, *babul* sticks, *tad* leaves and *khilkhila* leaves. The major forest products are derived from the coupes due for working. These are worked through the forest labourers co-operative societies. The coupes not demanded by the societies are advertised for sale and are sold by tender or public auction. The coupes not sold are worked departmentally.

The minor forest products are also mostly sold by inviting tenders or by auction. Minor forest products such as *khilkhila* leaves are also extracted through the forest labourers' co-operative societies. Most of the forest produce is consumed in the industrial centres like Thane, Bhiwandi, Ambarnath, Bombay and Pune.

Income and expenditure : During 1967-68 the total income and expenditure of the forests amounted to Rs. 1,15,18,637-66 and Rs. 56,63,912-21 respectively.

Forest roads : The total length of the thirteen forest roads is 97.24 kilometres, the longest road being Deoband-Mangrud road, with a length of 27.35 kilometres. All the roads are fair-weather roads and are of little use in monsoon.

Relation to the people : The recognised forest rights, privileges and concessions given to villagers in the district are embodied in the Bombay Forest Manual. The villagers also enjoy the special privileges regarding removal of grass, seeds, dead leaves, bamboos and firewood for their use. Scheduled tribes in Shahapur division are allowed to collect fruits, edible tubers and *palas* leaves for their domestic use as well as for sale. *Apta* and *tembhurni* leaves are also allowed to be collected by scheduled tribes of Dahanu, Murbad and Shahapur talukas both for sale and personal use. Under *nistar* facilities, villagers procure small-sized timber and fire-wood at half the market rates from the coupes worked by contractors and forest labourers' co-operative societies.

Vana Mahotsava : The Government of India initiated in 1950 an important programme called *Vana Mahotsava* to be celebrated in the first week of July every year when the monsoon sets in. The object of *Vana Mahotsava* is to encourage planting of as many trees as possible in suitable localities. In selecting the species, preference is given to quick-growing species of economical value. Nurseries are raised for the supply of seedlings at various places in the district. The supply of seedlings is made through the Zilla Parishad for

distributing the seedlings to the people interested in planting. The after-care of the young plants is undertaken by the individuals or the public bodies to whom seedlings are supplied. In the year 1968-69 the Forest Department supplied eighteen kg. of seed and 5,87,101 seedlings in Thane circle.

Integrated Units: To popularise the use of the secondary timber, the Integrated Unit has been established at Dahanu Road with a saw mill of an annual intake capacity of 3,000 tons of round timber, and an ASCU treatment plant. The Divisional Forest Officer is in charge of the Unit and is assisted by the Mechanical Superintendent and one Range Forest Officer. The intake capacity of round timber of saw mill was 2,261 cubic metres. The out-turn of sawn timber in 1968-69 was 1,047 cubic metres.

Park at Vajreshwari: The management of the park at Vajreshwari is now the responsibility of the Forest Department. The park is situated at a distance of 75 kilometres from Bombay near Ganeshpuri and it attracts tourists due to the hot-water springs nearby. It is proposed to develop this area by improving its landscape.

DIRECTORATE OF INDUSTRIES

Organisation: The work of the Directorate of Industries is mainly confined to the development and progress of cottage, small-scale and large-scale industries. This promotional activity consists of providing well-developed industrial area with water, power and road facilities; organising co-operative industrial estates; giving assistance in regard to finance, raw materials, import of machinery and hire purchase of machinery; providing marketing facilities, quality marking and export promotion; as also research and training facilities etc., and organising resource-based industries on co-operative basis. In addition to this, the regulatory function of enforcement of weights and measures is also undertaken by the Directorate.

The Industries Commissioner, Bombay, is the head of the organisation. Thane district is included in the Bombay region which is under the control of a Joint Director of Industries, Bombay Region, Bombay. The Industries Officer, Thane looks after all routine work of the Directorate in the district under the guidance and directives of the Joint Director of Industries. The Collector of the district is *ex-officio* Deputy Industries Commissioner and his responsibility is to co-ordinate the work concerning industrial development. For enforcement of the Weights and Measures Act, the Thane district is split up into following three divisions, viz. :—

- (1) Thane Division comprising Thane and Bhiwandi talukas.

(2) Kalyan Division comprising Kalyan, Ulhasnagar, Murbad, Shahapur, Jawhar and Mokhada talukas.

(3) Palghar Division comprising Palghar, Dahanu, Talasari Wada and Vasai talukas.

The Industries Officer who looks after the various aspects relating to weights and measures has to work in close collaboration with the regional officer in respect of common matters and functions. He is assisted in industrial matters by one senior Industries Inspector and two junior Industries Inspectors. The duties of the Industries Inspectors include inspection and investigation, collection of revenue resulting from the enforcement of the Weights and Measures Act, 1958. The Industries Inspector is required to render help to entrepreneurs in selection of industries which they propose to start, making available for them facilities of land, power, machinery, raw material, finance and technical guidance.

Activities: The Dahanu, Palghar, Vasai, Thane, Kalyan, Ulhasnagar and Bhiwandi talukas of the district which are near to Bombay have witnessed considerable industrial development during the last few years. This has especially been due to factors such as a ready market, communication facilities, availability of skilled labour, etc. The industrial areas in the district where development has been undertaken by the Maharashtra Industries Development Corporation are shown below :—

Location	Acres of land for industries	
Wagle Industrial Estate	996
Mira Industrial Area	22
Trans-Thane Creek Area (Belapur Road and Kalwa).		5,650
Dombivali Industrial Area	1,897
Ambarnath Industrial Area	567
Badlapur Industrial Area	239
Kalyan-Bhiwandi Industrial Area	119
Vangani Industrial Area	908

Besides, co-operative industrial estates have been organised at Palghar with thirty acres of land and at Vasai with forty acres of land.

The number of large-scale and small-scale units working in the district in 1968 was 188 and 3,727, respectively, of which 1,015 were registered under the Factories Act. The number of powerlooms was

about 40,000. During the year 1968 a total of 336 small-scale industrial units were established.

CO-OPERATION DEPARTMENT

An agro-industrial economy like that of India with her emphasis on rapid socio-economic reconstruction offers considerable scope for the organisation and development of co-operative department of the State Government. The activities of the co-operation department cover rural and urban credit, co-operative marketing and processing, agricultural marketing, industrial co-operatives, consumers' and housing co-operatives, fisheries co-operatives and money-lending business in the district. All these activities are governed under the Maharashtra State Co-operative Societies Act, 1960; the Maharashtra Agricultural Produce Marketing (Regulation) Act, 1963, and the Bombay Money-lenders Act, 1946.

Organisation : With the formation of the Zilla Parishad, co-operation has come under the dual control of the Zilla Parishad and the State Government. The co-operation department of the Zilla Parishad is responsible for the registration, organisation, supervision, and inspection of all types of co-operatives in rural areas, having authorised share capital up to Rs. 50,000 or working capital up to Rs. 5 lakhs. The responsibility for the regulatory functions does not lie with the Zilla Parishad. The Zilla Parishad also controls and supervises all regulated markets. All activities pertaining to the co-operative movement in urban areas are carried out by the department in the State sector.

The Commissioner for Co-operation and Registrar of Co-operative Societies is the head of the department at the State level.

The Joint Registrar of Co-operative Societies, Bombay, works as the Divisional Joint Registrar of Money-lenders. The Assistant Registrar of Co-operative Societies works as Assistant Registrar of Money-lenders in his jurisdiction while District Deputy Registrar keeps control over Money-lenders in the district and issues licences to money-lenders and is responsible for the administration of the Bombay Money-lenders Act. The Co-operative Officers have to work in dual capacity both as Co-operative Officers and Inspectors of Money-lenders.

Thane district is under charge of the District Deputy Registrar of Co-operative Societies, Thane who is assisted by Assistant Registrars of Co-operative Societies. The jurisdiction of Assistant Registrars extends over an area of six talukas each, as specified by the District Deputy Registrar. The Assistant Registrars are assisted by one Co-operative Officer, four Assistant Co-operative Officers and two

Co-operative Supervisors. They also work as Assistant Registrars of Money-lenders within their respective jurisdictions. At the taluka level two or three Co-operative Supervisors are attached to Taluka Co-operative Supervising Unions which are federal organisations of agricultural credit societies in the taluka. Supervision at regular intervals over the working of all agricultural credit, and multi-purpose societies in the district is carried on by the Co-operative Supervisors. Every society is visited and inspected at regular intervals by them.

Since the formation of the Zilla Parishad one Assistant Registrar has been transferred to it. He works as the Industries and Co-operation Officer of the Zilla Parishad. He is delegated with certain powers exercised by the Registrar of Co-operative Societies in respect of the registration of new societies and amendments to the bye-laws of certain types of societies coming under the purview of the Zilla Parishad. He has also to work as secretary of the co-operation committee of the Zilla Parishad. The Industries and Co-operation Officer is assisted by the Block Development Officers and the Extension Officers at the block level.

The district supervision committee is an *ad hoc* body consisting of representatives of the supervising unions and of agricultural non-credit societies, representatives of the District Central Co-operative Bank and the District Deputy Registrar. It works as a link between the taluka (block) supervising unions and the State Board of Supervision.

The activities of education, training and propaganda in co-operation are carried out by the Thane District Co-operative Board which is affiliated to the Maharashtra State Co-operative Union Ltd., Bombay. The membership of the Board is of two classes, viz., associate members, covering individuals; a nominee each of the central financing agency (Thane District Central Co-operative Bank Ltd.), the District Deputy Registrar and the Executive Officer of the Maharashtra State Co-operative Union.

Achievements : The co-operative movement in Thane district has shown considerable progress since its inception. This progress is especially marked in the organisation of forest labourers co-operatives, fisheries co-operatives, housing co-operatives, salary earners co-operatives, consumers stores and co-operative rice mills. Banking and credit facilities to co-operatives in the district are provided mainly by the Thane District Central Co-operative Bank and the Thane-Kulaba District Land Development Bank. The Thane District Central Co-operative Bank provides credit facilities to agriculturists through the primary credit societies affiliated to it. The Government share capital contribution paid to the bank is Rs. 29 lakhs. The total paid-up share capital of the bank is Rs. 53.98 lakhs. The branches of this bank are spread all over the twelve talukas of the district.

The number of service co-operatives during 1968 in the district stood at 601 with a total membership of 83,938, of which 38 societies were granted Government share capital contribution of Rs. 2.39 lakhs and 52 societies constructed small-size and medium-size godowns. Government loan and subsidy at the rate of Rs. 10,000 each for small-size and Rs. 20,000 for medium-size godowns were sanctioned. Most of these societies have undertaken distribution of foodgrains, fertilisers and improved seeds. There were 39 fisheries societies. The Government contributed Rs. 2,07,632 towards the capital of these societies in addition to the loan of Rs. 25,72,721.

There were 22 dairy societies in the district of which eight were in Vasai taluka. The introduction of the Government milk scheme in Bombay has encouraged their activities. These societies get financial assistance through District Central Co-operative Bank for supply of she-buffaloes to their members on liberal terms and conditions.

The work in respect of the co-operative agricultural processing societies is also noteworthy in the district. In 1968 there were 18 rice mills worked on co-operative basis, which received Rs. 3,60,755 from Government as contribution towards their share capital.

The number of housing societies in 1968 was 216 including 29 societies of backward classes.

There were 82 primary consumers societies and four wholesale stores.

The number of farming societies stood at 29, of which six were joint farming societies.

There were in all 86 forest labourers' co-operative societies in the district situated in the forest areas of Dahanu, Talasari, Jawhar, Wada, Shahapur, Palghar and Vasai talukas. These societies get financial assistance from Government of India for the first three years of their registration at the rate of Rs. 1,200 towards management expenses, Rs. 1,500 towards inaugurating social welfare activities, and Rs. 3,000 as Government share capital contribution. In 1968 the number of members of these societies was 13,263.

There were five co-operative industrial estates in the precincts of Thane Town and Vasai with one big society having 324 individuals as members. The total paid-up capital of these societies is Rs. 12,12,275 including government contribution of the value of Rs. 2,00,000.

Among the non-agricultural credit societies, there were five urban banking co-operative societies with a total membership of 15,700, twelve urban credit societies with 10,863 members, 21 salary-earners societies with 21,284 members and three mill workers societies with 1,926 members.

The amount of loan and financial assistance sanctioned in 1968-69 by the Zilla Parishad to the various co-operatives is shown below :—

Type and number of Societies	Amount sanctioned as		
	financial assistance	loan	contribution to share capital
Labourers Co-operative Societies (9)	.. 6,775	6,000	6,000
Fisheries Co-operative Societies (3)	.. 11,200	45,000	1,200
Processing Society (1)	.. ....	....	4,132
Agricultural Co-operative Societies (2)	.. 534	....	....
Industrial Co-operative Societies (2)	.. 266	....	2,000

MAHARASHTRA STATE ROAD TRANSPORT CORPORATION

The State Government nationalised passenger transport and the services were undertaken in 1948. The administration of these services was transferred to a statutory corporation in 1949 under the provisions of the Road Transport Corporation Act, 1948. The corporation was subsequently re-constituted under the Road Transport Act of 1950. The Public Transport Services, Nagpur, which had jurisdiction over the Vidarbha region and the State Transport Services in the Marathwada region were merged in the State Transport Corporation in May 1961 and the name of the corporation was simultaneously changed from Bombay State Road Transport Corporation to Maharashtra State Road Transport Corporation. For operational convenience the State is divided into Divisions.

Organisation : The Thane division is controlled by the Divisional Controller. He is assisted by depot managers who are responsible for the working of the respective depots in the division.

Maintenance : The light and heavy repairs of the buses are carried out at the divisional workshop. After the operation of every 12,000 miles, the vehicles are routed by the depots for preventive maintenance. In addition there are depot workshops where daily maintenance of the buses is carried out. Regular daily and weekly servicing and 4,000 mile docking for maintenance are carried out in these depots.

During 1970 there were eight depots in the Thane Division, of which seven were located in the district at Thane (107)*, Bhiwandi (53),

* The figures in brackets show number of vehicles attached to the depot.

Kalyan (92), Palghar (42), Jawhar (33), Vasai (54) and Arnala (24). In the year 1961 the number of routes was 114 and the same rose to 242 in 1967.

The number of drivers in the district in the year 1960, 1965 and 1970 was 480, 777 and 1,012, respectively and that of conductors 465, 769 and 882 during the corresponding years.

FISHERIES DEPARTMENT

Fishing is an important industry in Thane district. It has coastal belt of about 113 kilometres providing substantial fields for marine fisheries. Moreover, rivers, tanks and ponds also afford scope for inland fishing. The total length of perennial rivers in the district is about 400 kilometres. There are about 200 tanks and ponds providing about 800 acres of water-spread area. However, the marine fishery dominates.

The important sea fishing centres in the district are Navapur, Dahanu, Poppharan-Uchheli, Murbe, Satpati, Dativare, Arnala, Vasai and Uttan. Fishing activities are carried on during the period September to May. The important varieties of inland water fish are : *Kirkit, Murrel, Chalat, Muri, Zinga*, etc.

During 1968-69 there were 29 primary fisheries societies with a membership of about 20,000. Due to weak financial position of these societies the Government have been aiming at providing them with grants and loans at lower rates of interest. From 1967-68 the Government decided to co-ordinate supply of capital, production of fish and marketing by bringing the industry under co-operative fold. With this end in view, it was decided to give loans for construction of new boats, their docking etc. through co-operative machinery. During 1968-69 Government grants amounted to Rs. 26,392.

There is a Government Service Station at Satpati for providing repairs service. During 1968-69 repairs worth Rs. 6,190 were carried out.

Education to the fisher-children also occupies an important place in the developmental activities. The schools lay stress on teaching of subjects intimately related to fisherman's life and environment. These schools are run at primary and secondary levels. The primary fishery schools are located at Satpati and Navapur. At Satpati there is also a secondary fishery school. In addition to these institutes, there is a training centre at Vasai where training in fishing techniques is provided.

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CHAPTER 14 — LOCAL SELF-GOVERNMENT

INTRODUCTION

THE ADMINISTRATION OF LOCAL SELF-GOVERNMENT INSTITUTIONS IN the district is vested in various bodies such as municipalities, village panchayats and Zilla Parishad enjoying local autonomy in different degrees.

MUNICIPAL COUNCILS

Formerly the municipalities in Thane district were governed under the Bombay District Municipal Act and the Bombay Municipal Boroughs Act till its replacement by the Maharashtra Municipalities Act of 1965, which came into force from 15th June 1966.

Every municipal council constitutes a body consisting of elected councillors. The term of the office of a municipal council is for five years which can be extended further by the State Government. Every council is presided over by a president elected from amongst the councillors. Each council has a vice-president who is nominated by the president from amongst the members of the council. The president has to preside over the meetings of the council, has to guide the financial and executive administration and has to supervise and exercise control over all officers and servants of the council. The Act also provides for the formation of sub-committees for proper administration by the elected members.

The duties of a council are divided into obligatory and optional. The former include all matters essential to the health, safety, convenience and well-being of the population, while the latter are those which though legitimate objects of local expenditure but are not considered absolutely essential. The obligatory duties include lighting and cleaning of streets, public places ; regulating offensive trade ; constructing and maintaining public streets, markets, latrines, etc., providing sufficient water-supply ; registering births and deaths and carrying out vaccination ; providing medical relief and maintaining relief works during famine.

The municipal council provides for laying out new streets, constructing, maintaining public parks, gardens, *dharmashalas*, rest-houses and homes for displaced persons. Provision of educational facilities is one of the most important functions of a municipality. The

municipal council derives revenue from taxes on buildings, land, vehicles, octroi on animals and goods, special sanitary tax, water tax, tax on pilgrims, education cess and building repair cess. During the last about five years the system of administration of municipal finance has undergone a tremendous change. The municipal councils are now under obligation to raise the requisite revenue from various sources within their jurisdiction. They are also provided matching grants by the State Government.

Before passing of the Maharashtra Municipalities Act, the control over the municipalities was vested in the Collector, the Divisional Commissioner and the State Government. The same is exercised now by the Director of Municipal Administration.

There are eight municipal councils in the district at Vasai, Kalyan, Jawhar, Thane, Bhiwandi-Nizampur, Dombivali, Ambarnath and Ulhasnagar. These municipalities have been established under the Bombay Municipal Boroughs Act of 1925 and the Bombay District Municipal Act of 1901. The year of establishment, total number of elected councillors, etc. is shown in Table No. 1 on page 865.

The Kalyan municipal council is the oldest in the district whereas the municipal council of Ulhasnagar has been established recently. The eight municipal councils together covered 82.16 per cent of the urban population or 24.82 per cent of the total population of the district as per the Census of 1961.

The income and expenditure of the municipalities during a few years is shown in Table No. 2.

ZILLA PARISHAD

Historical background: With the attainment of Independence, India began its efforts towards economic and social advancement. Planned economy was accepted as the guiding principle towards the realisation of this objective. However, the experience indicated that the progress of rural development was not commensurate with the expectations. This was attributed to the non-participation of the rural people in the implementation of such development schemes. Under the circumstances, the Central Government appointed a committee to go into the question and to suggest remedial measures.

The Committee which was headed by Balwantrai Mehta studied the entire situation and submitted its report wherein it laid emphasis on the failure of Government in appealing and attracting the participation of the masses in community and national development schemes. The Committee also held responsible the local-self governing institutions for not taking keen interest in such developmental activities. The

Committee suggested that these difficulties could be overcome by decentralising power and responsibility at the lower level. It further suggested that the responsibility for regional and local development should be assigned to local institutions at the district level and the Government should perform the role of guiding, supervising and planning from a higher level and making available the required finances and so on.

In the light of these recommendations the Government passed the Maharashtra Zilla Parishads and Panchayat Samitis Act in 1961. Accordingly, Panchayat Samitis were established on par with the block development committees, and at the district level a district committee called Zilla Parishad was established, and these were entrusted with the execution of certain works and development schemes.

The Thane Zilla Parishad started functioning in 1962. The number of members of the Zilla Parishad during 1975-76 was 66, of whom one was a woman. There were thirteen chairmen of Panchayat Samitis, of whom five were elected by the Zilla Parishad.

Powers and functions : A brief description of the powers and functions of the President, the Vice-President and other officials and non-officials of the Zilla Parishad is given below :—

The President has to preside over the meetings of the Zilla Parishad. He discharges all the duties imposed and exercises all the powers conferred upon him by the Act and supervises the financial and executive administration.

The Vice-President, in the absence of the President, presides over the meetings of the Zilla Parishad and exercises such of the duties of the President from time to time as delegated to him by the President.

The Chief Executive Officer is entitled to call for any information, return, statement, account or report from any officer or servant of the Zilla Parishad ; supervises and controls all the activities of the Zilla Parishad ; and draws and disburses money out of the District Fund. He is entitled to attend the meetings of the Zilla Parishad or any of its committees (including any Panchayat Samiti).

The Block Development Officer is the secretary, *ex-officio*, of the Panchayat Samiti and is empowered to call for any information, return, statement or explanation from any officers working under the Panchayat Samiti ; and draws and disburses money out of the grant or rents payable to the Panchayat Samiti.

For the day-to-day administration of the Zilla Parishad various departments and committees have been constituted which are mentioned below :

General Administration Department : The General Administration Department of the Zilla Parishad looks after matters such as

establishment, planning, audit, village panchayats, social welfare, publicity, etc. The Deputy Chief Executive Officer is the head of the department who also acts as the secretary of the standing committee of the Zilla Parishad.

Finance Department: The Chief Accounts and Finance Officer of the Zilla Parishad is the head of the department and works as secretary of the finance committee. He is assisted in his work by the Accounts Officer. The inspection branch of the department audits the accounts of every Panchayat Samiti after a period of every three months. During the year 1962 the income and expenditure of the Zilla Parishad was Rs. 8,21,64,441 and Rs. 7,93,04,462, respectively. In 1974-75 the income of the Zilla Parishad increased to Rs. 10,14,69,000, of which a sum of Rs. 4,95,68,000 was received on account of Government grants. The expenditure amounted to Rs. 13,10,04,000 in the same year.

Education Department: The Educational Inspector, designated as the Parishad Education Officer, acts as the secretary of the education committee of the Parishad. During the same year the expenditure incurred by the Zilla Parishad on education amounted to Rs. 2,62,65,000.

Co-operation and Industries Department: The Co-operation and Industries Officer who is the secretary of the co-operation committee heads the department. He is assisted in his work by Co-operation Officer, Assistant Co-operation Officer and other necessary staff. The Zilla Parishad, Thane, disbursed a sum of Rs. 6,775 as financial assistance and Rs. 6,000 as loan to a labourers co-operative society. Financial assistance to fisheries co-operative societies amounted to Rs. 11,200. The Zilla Parishad also incurred an expenditure of Rs. 8,900 on various schemes of the co-operation department during 1968-69.

Agriculture Department: The District Agricultural Officer is the head of the department and acts as the secretary to the agriculture committee of the Zilla Parishad which promotes agricultural development activities. The department distributed 2,32,151 quintals of improved variety of seeds to farmers for the improvement in agricultural production in 1968-69. As many as 284 experiments and demonstrations were organised in the district at a total cost of Rs. 49,920. The Parishad, during the same period, distributed 12,239 quintals of ammonium sulphate and other chemical fertilizers through co-operative societies.

Works Department: The department is controlled by the works committee of the Zilla Parishad and is headed by the Parishad Executive Engineer who also works as the secretary to that

committee. He is assisted by the Deputy Engineers, Overseers and other necessary staff.

The department deals with the work relating to the major district roads, other district roads and village roads. During 1966-67 the road mileage under the jurisdiction of the Zilla Parishad was 1,379.28 kilometres of which the length of major district roads was 269 kilometres. In 1968-69 the total length of roads was 1461.24 kilometres of which a length of 63.19 kilometres was asphalted. An expenditure of Rs. 28,93,672 was incurred in the same year on the road development programme, of which Rs. 2,05,496 were spent on the construction of new roads.

Public Health Department : The public health matters in the district which were formerly looked after by the State Government are now looked after by the Public Health Department of the Zilla Parishad. The Civil Surgeon is entrusted with the work connected with the Civil Hospital, Thane and maintenance of proper health standards in the urban areas of the district. The department is headed by the District Health Officer.

The main function of the department is to control and eradicate epidemic diseases. Propagation and execution of family planning schemes is transferred to the Zilla Parishad on agency basis. The centres located in the district organise vasectomy and tubectomy operation camps.

A sum of Rs. 5,73,051 was spent on allopathic and Rs. 62,312 on ayurvedic dispensaries during 1968-69. Towards the public health services, the Zilla Parishad incurred an expenditure of Rs. 16,13,831 during the same year, of which a sum of Rs. 5,87,637 was spent on primary health centres and a sum of Rs. 9,16,343 was spent on rural sanitation in the district.

PANCHAYAT SAMITIS

Under the Maharashtra Zilla Parishads and Panchayat Samitis Act, 1961, a Panchayat Samiti is established in every block. A Panchayat Samiti consists of the following members :—

- (a) all councillors who are elected on Zilla Parishad from the electoral divisions in the block,
- (b) the co-opted councillors of the Zilla Parishad residing in the block,
- (c) the chairmen of co-operative societies dealing with sale and purchase of agricultural produce in the block as nominated by Government to be associate members,
- (d) the chairman of a co-operative society conducting business relating to agriculture not being a society falling under (c) above in

the block, co-opted by the Panchayat Samiti (to be an associate member),

(e) a woman-member in case of non-availability of a woman-candidate belonging to scheduled castes or scheduled tribes, co-opted by the Panchayat Samiti, and

(f) *sarpanchas* elected by members of the village panchayats.

There are in all thirteen Panchayat Samitis in the district with headquarters at Vasai, Kalyan, Shahapur, Wada, Mokhada, Jawhar, Bhiwandi, Thane, Palghar, Dahanu, Murbad, Talasari and Ulhasnagar. The membership of all these Panchayat Samitis in 1974-75 was 104.

VILLAGE PANCHAYATS

From the early times, villages in India formed self-sufficient units and were administered by the *gram Panchayats*. Centralisation of power during the British period resulted into decline in the autonomy of the *Panchayats*. The pressure of public opinion however forced the Government to pass an Act for village panchayats which was implemented in 1920 by establishing a few village *panchayats* in the district, their supervision having been entrusted to the District Council.

Under the Bombay Village Panchayats Act of 1958, a *panchayat* has to be established in every local area having a population of not less than 500. The maximum number of members prescribed for a *panchayat* is fifteen and the minimum seven. The State Government have been empowered to reserve seats for scheduled castes and scheduled tribes. The term of a *panchayat* is for five years. Every *panchayat* has to elect a *sarpanch* and a *upa-sarpanch* from amongst its members. Every village *panchayat* or a group of *panchayats* has a secretary who looks after the administration. With the passing of the Maharashtra Zilla Parishads and Panchayat Samitis Act, 1961, the services of these secretaries were transferred to the Zilla Parishad; and now they have been re-transferred to the State Government. Under the Bombay Village Panchayats Act, 1958, the division of duties as obligatory and optional was annulled and panchayats were made responsible for the all-round development of villages. The special features of the Act were constitution of *gram-sabhas*, appointment of a secretary as a full-fledged Government servant, collection of land revenue and maintenance of land records, etc.

A District Village Panchayat Officer was appointed to look after the village *panchayat* administration in the district. With the formation of the Zilla Parishad, the district *panchayat mandals* were abolished and Village Panchayat Officers now work under the Zilla Parishad. The control over village *panchayats* is exercised by the Zilla Parishad through the Panchayat Samitis.

The strength of village *panchayats* in the years 1961-62, 1971-72 and 1975-76 in the district is shown in the following statement :—

Taluka	Number of independent and group village panchayats		
	1961-62	1971-72	1975-76
(1)	(2)	(3)	(4)
Dahanu	75	78	82
Galasari	21	21	21
Mokhada	40	44	45
Jawhar	60	61	61
Palghar	105	125	127
Wada	71	85	86
Vasai	63	68	70
Bhivandi	78	86	100
Shahapur	82	92	96
Murbad	78	101	105
Kalyan	75	50	54
Thane	40	44	53
Ulhasnagar .. ..	....	34	41
Total ..	788	889	941

In the year 1965-66, there were 818 village *panchayats* covering 1,634 villages in the district. This number rose to 871 in the year 1970-71, of which group village *panchayats* numbered 428 with 1,191 villages. Out of 941 village *panchayats* in 1975-76, 418 were group village *panchayats*. In respect of constitution of these village *panchayats* the number of seats were 7,353 in 1970-71, of which 5,081 were unreserved seats, 43 associate members and the rest were reserved for women, scheduled castes and scheduled tribes. During 1974-75 there were 8,402 total seats, of which 5,648 were general seats, 2,548 reserved seats and 206 associate. The reserved seats included 275 for scheduled castes, 456 for scheduled tribes and 1817 for women. The nominated seats were 81.

The receipts included the Government grant equivalent to 30 per cent of the land revenue collected in the village or one rupee per head of

population, whichever is more. The village *panchayat* also gets the entire local fund cess collected in the village.

The total income of all village *panchayats* in 1961-62 was Rs. 19,23,000, of which grants amounted to Rs. 8,12,000. In the year 1970-71, the income rose to Rs. 63,08,700 including grants of Rs. 25,74,765. The break-up of total income of village *panchayats* in 1974-75 is shown below :—

		Amount Rs.
Grants	... ..	52,26,784
Contributions	... ..	2,36,506
Donations	... ..	2,62,218
Taxes, fees, etc.	... ..	49,80,150
Gifts	... ..	40,323

The *per capita* income of village *panchayats* in the district in 1970-71 was put at Rs. 5.08 whereas the income per village *panchayat* was Rs. 7,243. The percentage of self-raised income to total income was 46.3. The incidence of taxation per head was Rs. 2.35.

The total annual expenditure in the year 1961-62 was Rs. 13,81,000, of which expenditure on administration amounted to Rs. 3,10,000, the percentage of which was put at 22.45.

During the year 1970-71 the head-wise expenditure of all the village *panchayats* in Thane district was as follows :—

		Rs.
Sanitation	... ..	12,55,140
Public works	... ..	28,99,499
Education	... ..	5,97,168
Village watch and ward	... ..	66,969
Administration	... ..	13,36,327
Welfare	... ..	1,56,827
Agriculture, forest, etc.	... ..	1,49,363
Village and cottage industries	... ..	4,369
Total	... ..	64,65,662

The per capita expenditure during 1970-71 was Rs. 5.20, whereas the expenditure per village *panchayat* in the district during the same year was Rs. 7,423. The total expenditure of all village *panchayats* during 1974-75 amounted to Rs. 1,05,88,403.

TOWN PLANNING AND VALUATION DEPARTMENT

There is an independent Town Planning and Valuation Department under the administrative control of the Urban Development, Public Health and Housing Department. Some of the important duties and functions of this department as stipulated by Government are given below :

Functions : The duties and functions pertaining to town planning are to prepare regional plans, development plans and town planning schemes ; to render assistance to the municipal authorities in the preparation of development plans and town planning schemes ; to carry out surveys, prepare existing land-use-plans and development plans ; to advise and prepare town development, improvement, extension and slum clearance schemes under the Municipal Acts ; to advise the Government on housing, slum clearance, regional planning and prevention of ribbon development ; to prepare type designs for the housing of the middle and poorer classes including backward classes, etc. The functions pertaining to valuation include, valuation of agricultural and non-agricultural lands and properties in towns and villages belonging to Government and intended for the purposes of sale or lease ; valuation for the purposes of fixing standard rates of non-agricultural assessment and prescribing zones of values in all villages and rising localities in the vicinity of important and growing towns.

Regional Planning : The scope of regional plans for an urban area is to formulate a policy for guidance and control of development within the region in such a manner that—

(i) land be used for the best purposes for which it is most suitable, e.g., residential, commercial, industrial, agricultural, recreational, etc.

(ii) adequate means of communications be provided for traffic throughout the region ;

(iii) building development be concentrated in areas where adequate public utility services can be supplied economically ;

(iv) ample areas be reserved as open spaces ;

(v) historical monuments be preserved, etc.

Briefly, the object of the regional plan is to regulate development so as to maintain a proper balance between buildings and open spaces and secure healthy and economic urban growth.

So far as Thane district is concerned, there is a branch office of this department headed by the Assistant Director of Town Planning at Thane whose jurisdiction extends over Thane district. Besides, this office also deals with the preparation of development plans for four towns of Kolaba district. Out of eight municipal towns in the district development plans have been sanctioned for three municipal councils, viz., Thane, Kalyan, and Bhiwandi, which have been prepared by the Thane branch office. However, the Thane Municipal Council proposes to revise the sanctioned development plan. This work of revision of the development plan of Thane as also the work of preparation of development plans for Ulhasnagar, Dombivali, Vasai, Ambarnath and Jawhar has been entrusted to this office. The Town Planner, Thane, has been appointed as the Town Planning Officer by the respective municipal councils. In addition to above, the work of preparation of the development plans for the four towns, viz., Pen, Panvel, Murud-Janjira and Roha-Ashtami from Kolaba district has also been entrusted to this office. This office has prepared and published the draft development plan of Pen. The Town Planner, Thane, has also been appointed as the Town Planning Officer for Panvel Municipal Council. The branch office has also prepared and published the draft town planning schemes, viz., Bhiwandi No. I and Thane No. I which have been sanctioned by Government. Arbitrators have also been appointed by Government for these schemes for finalising them for submission to State Government for sanction. The branch office has also prepared and published the draft town planning schemes Thane No. II and Kalyan No. I. Of this, the former has been submitted to Government for sanction. Besides the above work, the office prepared a number of lay-outs in respect of Government lands in Thane district and rendered necessary advice to the local authorities as also to revenue authorities as and when sought for.

Some portion in this district has now been included in the Bombay Metropolitan Region, and as such, this office has to advise the Revenue authorities in regard to the planning and policy decisions of the Metropolitan Regional Planning Board. This has also necessitated the preparation of lay-out plans with proper zones for villages around Thane, viz., Kolshet, Balkum, Chitalsar-Manpada, Majiwada and Panchapakhadi to the north of Thane and Kalwa, Dighi and Parsik to the east and zoning of villages along the Thane-Belapur Road as also lay-out plans around the villages Mira, Ghodbundar, Bhayandar, Kashi, etc. on the Western Railway and lay-out plans for the areas around Atale near Kalyan on Central Railway.

TABLES

TABLE No. 1—MUNICIPAL COUNCILS IN THANE DISTRICT

Municipal council	Year of establishment	Area* in square kilometres	Population		Total councillors
			1961	1971	
(1)	(2)	(3)	(4)	(5)	(6)
Vasai	.. 1864	.. 8.00	22,598	30,594	22
Kalyan	.. 1855	.. 7.64	73,482	99,547	37
Jawhar	.. 1918	.. ....	4,732	6,610	16
Thane	.. 1862	.. 26.16	1,01,107	1,70,675	44
Bhiwandi-Nizampur.	1865	.. 4.12	47,630	79,576	31
Dombivali	.. 1958	.. 2.33	18,407	51,108	20
Ambarnath	.. 1959	.. 18.13	34,509	56,276	23
Ulhasnagar	.. 1960	.. 13.34	1,07,760	1,68,462	45

*Area as per the 1971 Census.

TABLE No. 2—INCOME AND EXPENDITURE OF MUNICIPAL COUNCILS IN THANE DISTRICT

(Rupees in thousands)

Municipal Council	Year					
	1965-66		1971-72		1974-75	
	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Vasai	.. 5,07	4,22	8,13	9,42	12,38	12,06
Kalyan	.. 21,01	18,90	49,63	41,31	70,84	63,35
Jawhar	.. 1,38	1,18	2,18	2,01	3,37	3,78
Thane	.. 45,21	43,09	1,54,65	1,53,60	2,72,02	2,52,31
Bhiwandi-Nizampur.	38,50	40,16	67,14	62,36	1,05,05	1,05,07
Dombivali	.. 4,95	5,06	30,34	30,51	48,42	43,96
Ambarnath	.. 9,05	7,21	30,72	29,75	57,38	42,71
Ulhasnagar	.. 10,40	9,86	36,16	32,25	1,04,52	84,07

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सत्यमेव जयते

CHAPTER 15 — EDUCATION AND CULTURE

HISTORICAL BACKGROUND

DEFINITE INFORMATION ABOUT THE CENTRES OF LEARNING IN ANCIENT, mediaeval and early modern times is not available in so far as the Thane district is concerned. However, there is no doubt that there was some sort of a system of imparting education. The educational system in early times co-existed with the religious institutions. In regard to the Hindu system of education, the *Dharmasutras* carried on the Vedic traditions and practices of education. The very tenor of life was changed for the pupils who had to stay with his *guru* or teacher. The students were admitted by the teacher without fee and after completing education, the pupils used to give the *guru* some gifts as *gurudakshina*. The teachers gave instructions, in some cases, not only in academic subjects but also in non-academic ones like science of war, achery, etc.

In regard to the Muslim system of education the higher education was in the hands of men of learning who devoted themselves to the instruction of the youth. Schools were attached to the mosques and shrines aided by State grants or by private persons. Elementary classes were included in schools attached to mosques but ordinary education was, as a rule, imparted at home. Persian was the medium of instruction.

With the establishment of British rule in India, the British government tried to introduce a reformed system of education and made some headway by the time its rule was firmly established in the country.

Before Government took the education of the district under their care every large village had a school. Since the introduction of State education these local private schools suffered greatly. It was the feeling among husbandmen and traders that the chief objects of schooling were to teach boys the fluent reading and writing of Modi script and arithmetic. The subjects they thought were better taught in private schools than in Government schools, and for this reason in large villages and country towns several private schools continued to compete successfully with Government schools. In 1879-80 there were sixty-three of these private schools with an attendance of about 1,095 pupils. The teacher's education was limited, but they taught the alphabet, the multiplication tables, and some of the simple rules of arithmetic.

The first Government vernacular school was opened at Vasai in 1827, and the second three years after at Kalyan. Five years later a school was established at Thane, and in the following thirteen years two schools were added, one at Panvel and the other at Mahim. Thus in 1850, there were only five Government schools in the district. The first English school was opened at Thane in 1851. Within about four years ten new schools were opened at different places, raising the number to sixteen. In 1857-58 the number of schools had risen to twenty-seven with 1,588 names on the rolls. By 1870 the number of schools had risen to 123, and the number of pupils to 7,027. In 1877-78 the number of schools had risen to 151, but the number on the rolls had fallen from 7,027 to 6,975. In 1879-80, the number of schools again rose to 154, with a strength of 7,842. A comparison with the returns for 1857-58 gives for 1879-80 an increase from twenty-seven to 154 in the number of schools and from 1,588 to 7,842 in the number of pupils.

Before 1867 there were no girls' schools. In 1871-72 there were six schools with 248 names on the rolls. In 1879-80 the number of schools was still six, but the number of pupils had risen to 363.

So far as town schools were concerned, in 1879-80, in the town of Thane, there were six schools with 661 names on the rolls. Of these six schools, one was a high school, two Marathi, one Urdu, one Anglo-Portuguese, and one girls' school. In addition to the six Government schools, there were seven private schools, one with 162 boys on the roll. Of these private schools, one was an Anglo-vernacular school, four Marathi schools, one Urdu school, and one Gujarati school. In 1879-80, in the town of Kalyan there were five Government schools with 451 names on the roll and an average attendance of 339 pupils. Of these schools, one was a first grade Anglo-vernacular school, one Urdu school, one Marathi school, one Gujarati school, and one girls' school. In the town of Bhiwandi there were three Government schools, two for boys and one for girls. The number of boys on the rolls was 280. In the town of Vasai there were two Government schools with 232 students. Panvel and Mahim had six and two schools, respectively.

Exclusive of the six towns of Thane, Kalyan, Bhiwandi, Panvel, Mahim and Vasai the district of Thane was, in 1879-80, provided with 133 schools or an average of one school to every sixteen inhabited villages.

LITERACY

The district has made remarkable progress in the field of education, especially in the last eighty years. In spite of very large proportion of scheduled tribe population, viz., 30.29 per cent which considerably

depresses the average, the literacy rates for the total population and females are higher than the corresponding State average and those for males are lower only by a small margin. As per the observations of the 1961 Census literacy rates for rural areas are lower than the State averages both for males and females because the scheduled tribes form 41.85 per cent of the total rural population. In urban areas, the literacy rates both for males and females are considerably higher than State averages. The combined averages for rural and urban population are higher than the State average because the district has a higher proportion of urban population, viz., 30.21 per cent.

Table No. 1 shows the number of literates and percentage of literates to the total population.

The number of persons able to read and write in the year 1872 was 30,040 out of a total population of 8,47,424. Of that, 29,475 were males and 565 females. The proportionate percentage stood at 9.55 for total persons, 7.03 for males and 1.30 for females literate population. The rate per mille of male population able to read and write was recorded as 70. The percentage of those actually under instruction and those not actually under instruction for males was put at 30.76 and 69.24, as against 59.46 and 40.54 for females.

In 1881, the proportion of learners to 1,000 school-going children in the age-group of five to fifteen years, was 110 males as against 13 females. Of the 23 districts of the then Bombay Presidency, the serial order in which the Thane district stood in 1881 and 1891 in respect of learners and literates of either sex is shown in the following statement :—

Males				Females			
Learners		Literates		Learners		Literates	
1881	1891	1881	1891	1881	1891	1881	1891
17	16	16	15	10	7	8	8

The average distribution, according to instruction of 100 males and females in 1891 was as follows :—

Sex	Learning		Literate		Illiterate		Number of persons among whom there was one able to read and write	
	1881	1891	1881	1891	1881	1891	1881	1891
Males ..	2.3	2.8	5.3	7.2	92.4	80.0	13.2	10.0
Females ..	0.12	0.31	0.14	0.37	99.73	99.32	3.77	1.47

The progress of education since the year 1901 to 1931 is shown in the following statement. The figures show the number of literate persons per mille :—

Year		Males	Females
(1) Age 10 and over—			
1931	...	171	31
1921	...	118	22
1911	...	133	22
1901	...	121	16
(2) 15 and 20 years—			
1931	...	207	47
1921	...	133	39
1911	...	141	35
1901	...	121	26
(3) 20 years and over—			
1931	...	178	27
1921	...	122	18
1911	...	138	18
1901	...	126	13

The percentage of total population returned as literate from 1901 to 1971 is shown in the following statement :—

Year	Total	Males	Females
1901	5.31	9.09	1.21
1911	5.88	9.99	1.61
1921	5.34	8.80	1.68
1931	7.50	12.39	2.31
1941	16.95	25.84	7.58
1951	24.34	33.52	14.19
1961	30.54	41.09	19.09
1971	40.65	50.34	29.80

The 1961 Census showed that the literacy percentage increased by about four times during the preceding thirty years. The literacy for females had in fact increased eight times during the said period. The general awakening in the country in the wake of freedom struggle since 1931 and the introduction of the scheme of compulsory education in

1947 contributed to this phenomenal growth of literacy in the district. The percentages for males and females for the same district for the year 1961 and 1971 are shown in the following statement : —

Year	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1961	30.54	41.09	19.06	20.73	31.15	9.93	53.19	62.41	41.99
1971	40.65	50.34	29.80	29.82	40.28	18.74	50.97	66.84	50.89

The 1961 Census showed that the southernmost area situated on the periphery of Greater Bombay and containing large towns like Thane, Kalyan, Ulhasnagar and Vasai was the most literate area in the district. Literacy rates dropped down both towards the north and east. The area around Jawhar had the lowest literacy rate within the district, Thane taluka, had the highest literacy for total population. Female literacy was the highest in Kalyan taluka. So far as the urban areas of the district were concerned, Shahapur, Thane, Kalyan and Vasai talukas had high literacy rates. As per the 1961 Census more than 90 per cent of the inhabitants in Talasari, Mokhada and Jawhar talukas were Adivasis. In Dahanu and Talasari talukas the percentages of rural population who had taken education upto primary junior, basic or matriculation to total rural population worked out at 8 and 3.6 per cent, respectively. The percentages for Mokhada and Jawhar talukas were 4.0 and 2.3 respectively. The percentage literacy by age groups for rural and urban areas as recorded by the 1961 Census is shown in the table No. 2.

Table No. 4 shows the educational standards for the general population in rural and urban areas in the district.

The comparative position of the scheduled castes and scheduled tribes population in 1951, 1961 and 1971 in the district was as follows :

				Percentage to total population		
				Total	Rural	Urban
Scheduled Castes	..	1951	..	3.01	3.54	2.02
		1961	..	1.37	1.20	1.77
		1971	..	1.59	1.32	2.04
Scheduled Tribes	..	1951	..	18.77	26.89	3.40
		1961	..	30.29	41.85	8.58
		1971	..	25.40	38.60	2.02

The scheduled castes, as a group, were closely following in literacy compared to the general population. In the rural areas they were in fact ahead of the general population. In 1961, for example, the district average was only 20.73 as against all scheduled castes average of 27.48. In the urban areas, however, they appeared to be trying to cover the gap between 50.19 per cent as represented in case of the general population and 30.43 per cent as represented in their own case. The percentage of literacy in the same period for the scheduled tribes in the rural areas was 5.60 as against 20.73 for the district average and 13.60 in urban areas as compared to the district average of 53.19 per cent. The areas in Talasari taluka and round about Jawhar had the lowest literacy rates of about 6.81 to 9.77. This was due to the high percentage of Adivasis who are not education-oriented and to inadequate facilities of education. Among the major scheduled tribes, Mahadeo Koli appeared to be the most educationally advanced and Kathodi the most backward tribe in the district. The education in rural and urban areas for the scheduled castes and scheduled tribes is shown in Table No. 3.

The number of scheduled caste beneficiaries in the primary and secondary institutions in 1970-71 was 10,728 and 1,767. There were 31,382 and 1,023 primary and secondary students belonging to the scheduled tribes in the same year. An amount of Rs. 6,90,000 was granted to 23,670 students coming under economically backward class in 1970-71. During 1974 the number of scheduled caste and scheduled tribe students studying at all the levels of education amounted to 19,346 and 37,225, respectively.

PRIMARY EDUCATION

As per the old *Gazetteer of Thana District* there were as many as 145 primary schools imparting education to 7,305 students in 1872. There were seven girls' schools with 294 pupils. In 1879-80 Government vernacular schools numbered 149, of which six were for girls. These schools imparted instruction to 6,730 boys and 363 girls. The daily attendance during the said period was 4,981 comprising 4,764 boys and 217 girls. The number of institutions and students from 1893 for a few years is shown in table No. 5 while the figures for the Jawhar State, then in existence, are shown in table No. 6.

The percentages of boy students to male population of school-going age for the years 1895-96, 1900-01, 1905-06, and 1910-11 were recorded as 23.0, 17.1, 22.2 and 26.1, respectively. The corresponding percentages for girls stood at 4.6, 3.9, 4.6 and 5.7, respectively. Taluka-wise figures of the institutions are shown in table No. 7.

The number of pre-primary and primary schools increased considerably from 1949-50 as can be seen from the following statement :—

Year	Particulars			
	Pre-primary		Primary	
	Schools	Students	Schools	Students
(1)	(2)	(3)	(4)	(5)
1949-50	1	46	1,338	1,08,159
1959-60	16	1,486	1,652	1,62,763
1969-70	33	3,438	2,082	2,62,097
1973-74	47	5,084	2,304	3,02,162

During 1975-76 there were 2,199 primary schools in Thane district of which 1,890 or nearly 85.9 per cent schools were managed by the Zilla Parishad, Thane. During 1962 this percentage was nearly 88.28. The classification of primary schools according to management was as follows :—

Management	Schools for		Students	
	Boys	Girls	Boys	Girls
	(2)	(3)	(4)	(5)
(1)				
Central Government	2	....	851	757
State Government	23	....	2,455	765
Zilla Parishad	1,882	8	1,08,234	73,151
Municipal Councils	60	4	14,963	14,384
Private—				
Aided	160	4	20,743	15,983
Unaided	56	....	9,891	7,216
Total	2,183	16	1,57,137	1,12,256

Out of the total of 2,69,393 students, 1,85,336 students including 72,776 girls were studying in primary schools situated in rural areas of the district.

The block-wise classification of primary schools during 1975-76 was :—

Bhiwandi block—206 schools for boys and one for girls ; Dahanu—188 and 2 ; Murbad—213 and 1 ; Palghar—223 and 1 ; Shahapur—230 and 2 ; Wada—162 and 1 ; Jawhar—119 for boys ; Kalyan—110 ; Mokhada—98 ; Talasari—47 ; Thane—100 ; Ulhasnagar—86 ; and Vasai—100.

The education in primary schools is provided through the media of Marathi, Hindi, English, Sindhi, Tamil, etc. The classification of students according to medium of instruction during 1975-76 was :—

Marathi, 1,27,968 boys and 87,701 girls ; Urdu, 4,755 and 4,887 ; Gujarati, 4,526 and 4,137 ; English, 7,194 and 4,483 ; Hindi, 3,293 and 2,012 ; Sindhi, 8,495 and 8,445 ; Kannad, 289 and 187 ; Tamil, 187 and 116 ; and Telugu, 430 and 288.

Teachers : The following statement shows the number of teachers in primary schools for a few years :—

Year (1)	Trained teachers			Total No. of teachers		
	Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)
1959-60 ..	1,240	632	1,872	2,910	1,120	4,030
1965-66 ..	2,553	1,184	3,737	3,556	2,074	5,603
1968-69 ..	3,191	1,794	4,985	4,050	2,726	6,776
1973-74 ..	..	..	6,782	..	..	9,107
1975-76 ..	3,615	2,533	6,145	4,555	3,627	8,182

The classification of teachers, according to management of schools, during 1975-76 was as shown below :—

Management	Teachers	
	Male	Female
Primary schools run by—		
Central Government	...	32
State Government	...	13
Zilla Parishad	3,901	1,826
Municipal Councils	225	641
Private—		
Aided	288	638
Unaided	65	426
Total	4,555	3,576

The *Adivasi* area of the district is gradually showing some progress in education. The five talukas, viz., Dahanu, Talasari, Mokhada, Jawhar and Shahapur where *Adivasi* population is predominant accounted for 703 primary schools out of 2,054 schools during 1968-69.

The percentage thus arrived was 34.2. During 1975-76 the number of schools in the above referred five talukas had increased to 749 with a total strength of 51,116 students. The percentage of students in *Adivasi* area to total number of students was 19.34. The number of students belonging to scheduled tribes during 1975-76 was 36,751 including 9,593 girl-students.

The number of pupils per teacher in the *Adivasi* areas referred above worked out to 34.2 as against 37.8 for the entire district during 1968-69. Thus the pupil-teacher ratio compared favourably with the district average. During 1975-76 there were 51,116 students and 1,676 teachers.

In 1961 there were five *ashram* schools conducted for the benefit of backward class people at Gothegari, Vajreshwari, Kosbad, Chalatwad and Talawade. The management of these schools was vested in the *Adivasi* Seva Mandal, Bombay ; Shri Gadge Maharaj Mission, Bombay ; and the Gokhale Education Society, Kosbad. The strength of students studying in these schools was 628. No fee was charged and lodging and boarding was also provided free of cost. During 1975-76 the number of *ashram* schools rose to 47, of which eleven were managed by private institutions, twenty-eight by Government and eight by the *Adivasi* Vikas Mandal.

Besides these, there were seven post-basic schools (10th std. attached) run by a private management. There was one Sanskrit Pathshala located at Thane run by private management.

Zilla Parishad Hostels : The Zilla Parishad, Thane runs hostels for primary and secondary students. Their number was ten during 1975-76 with a total strength of 371 students. These hostels were located at Ashagadh, Vikramgad, Mokhada, Shahapur, Talasari, Bordi, Jawhar, Khodala, Kinavali and Wangaon.

Expenditure : The expenditure on primary education is incurred by the State Government through grants-in-aid to Zilla Parishad. The building loans and grants to primary teachers training colleges are also extended by the State Government. The total non-Plan and Plan expenditure of recurring and non-recurring types on primary education during 1965-66 was Rs. 59,07,280, the share of Zilla Parishad being Rs. 47,70,000. During 1975-76, the total expenditure on primary education amounted to Rs. 3,95,17,420.

SECONDARY EDUCATION

The progress of secondary education in the district was quite remarkable in the decade 1951-61, and especially during the 2nd Plan

period. The rise in number of schools and students in secondary schools from 1949-50 onwards is shown in the following statement :—

Year	Secondary schools	
	Number	Students
1949-50	... 48	12,787
1959-60	... 74	27,297
1969-70	... 177	76,288
1973-74	... 205	104,611

Table No. 8 shows taluka-wise number of secondary schools in the district.

During 1975-76 there were 206 schools with a strength of 1,07,556 students including 42,438 girls. The block-wise number of secondary schools was : Bhiwandi 19 schools ; Dahanu 13 ; Jawhar 4 ; Kalyan 33 ; Mokhada 33 ; Murbad 7 ; Palghar 24 ; Shahapur 10 ; Talasari 1 ; Thane 32 ; Ulhasnagar 27 ; Vasai 25 and Wada 8. The number of schools in the *Adivasi* area of the district was 31 with a total enrolment of 9,576. The ratio of students per school in the *Adivasi* area was 309 in 1975-76 as against 522 for the entire district.

Teachers : The following statement shows the number of trained teachers in secondary schools in Thane district for a few years from 1959-60 :—

Year	Trained teachers			Total teachers		
(1)	Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)
1959-60	.. 479	239	718	730	342	1,072
1965-66	.. 937	686	1,623	1,243	882	2,125
1969-70	.. 1,178	1,015	2,193	1,582	1,251	2,833
1973-74	.. ..	..	2,802	..	..	3,734
1975-76	.. 1,666	1,347	3,013	2,038	1,520	3,558

Training facilities : The primary and secondary teachers are trained in the various training colleges located in the district. The number of training colleges, for a few years, is given below :—

Year	Number of training colleges	Number of teachers trained
1959-60	... 7	361
1965-66	... 13	880
1971-72	... 7	995

The training for pre-primary and primary teachers is provided by the Zilla Parishad. During 1975-76 there were five D.Ed. colleges run by Zilla Parishad in Thane district as shown below :—

Place		Taluka	Number of teachers admitted
D.Ed. College, Papdi	...	Vasai	38
D.Ed. College, Bajipur	...	Vasai	40
D.Ed. College, Manikpur	...	Vasai	40
D.Ed. College, Kosbad	...	Dahanu	80
D.Ed. College, Jawhar	...	Jawhar	36
Total ...			234

The training college at Kosbad also undertakes training to pre-primary school teachers, the seats reserved for them being forty.

S.S.C. Examination : The Secondary School Certificate Examination Board, Pune, conducts public examinations at the end of the secondary school course. Two examinations are held every year in March and October at Vasai, Dahanu, Kalyan, Thane and Ulhasnagar examination centres in the district.

HIGHER EDUCATION

Though there is immense growth of higher education in the district and though the number of students going for higher education is also quite high, the number of colleges imparting higher education in various faculties of education, is far less in Thane district. This is due to the proximity of Thane with Greater Bombay where there are a number of good colleges which attract students from Thane district as well. At present there are ten colleges in the district situated at Thane, Shahad, Ulhasnagar, Palghar, Bhiwandi and Vasai. Most of these colleges are of recent origin. Formerly these colleges were affiliated to the Poona University, but they are now affiliated to the Bombay University since May 1974. Almost all of these colleges have the arts, science and commerce faculties, while there is one college of Pharmacy at Ulhasnagar, and another College of Education at Ulhasnagar and a Law College at Thane. Out of these ten colleges in the district, post-graduate courses are conducted by only four colleges situated at Thane, Ulhasnagar and Bhiwandi. During 1974-75 the number of post-graduate students was 665.

The agricultural research and teaching centre of the Konkan Agricultural University at Kosbad is a very important centre of higher education in agriculture. This centre provides education upto graduation

as well as post-graduation levels. Table No. 9 gives some statistics regarding the different colleges in the district.

PROFESSIONAL INSTITUTIONS

These institutions include schools which impart instruction and guidance in agriculture, fine arts, nursing, arts and crafts, commerce, etc., which are more or less professional in character. The details of such institutions are shown below :—

Year	Number of	
	Institutions	Students
1959-60	... 33	2,509
1965-66	... 11	388
1971-72	... 28	1,226

KISAN SHIKSHAN

The Government started a movement during 1971-72 to train agriculturists in the fields of education, agriculture and cottage industries. In Thane district this movement was undertaken with the efforts of the Education and Agriculture departments and the Directorate of Rural Broadcasting. The district was divided for this purpose into six blocks having ten villages, each at Murbad, Jawhar, Shahapur, Wada, Dahanu and Palghar. During 1975-76, 2,064 adults including 216 women took the advantage of this training. The block-wise strength was as under :—Murbad 350 beneficiaries, Jawhar 363, Shahapur 345, Wada 345, Dahanu 335 and Palghar 326. The total expenditure incurred on this scheme during 1975-76 was Rs. 25,245. Government grants-in-aid amounted to Rs. 29,586.

FIFTH FIVE-YEAR PLAN SCHEMES

The minimum need programme of the State Government envisages to provide education to all children in the school-going age. The Fifth Plan of the district has accordingly accorded a due place to education. The programme in the Fifth Plan of the district will be carried out with the object of (1) improving the standard of education, (2) increase in the facilities at all stages, (3) introduction of technical wing at primary level, (4) organising central schools with hostel facilities and (5) expansion of primary, secondary and higher education by various means. The total outlay for education in the district in the Fifth Plan is earmarked at Rs. 485 lakhs. The details of major schemes included in the Plan are given below :—

- (1) **Primary education :** Out of 1,588 villages in the district, 77 villages are without schooling facilities. For providing primary

schools in all villages, two schemes, viz., appointment of primary teachers and inspecting staff with a total outlay of Rs. 74.32 lakhs have been included in the Plan. The target for appointment of teachers is 150 teachers every year. A scheme for construction of primary school buildings with an outlay of Rs. 15.00 lakhs will also be undertaken in the Fifth Plan with a target of construction of 375 class-rooms.

(2) **Pre-primary education :** The Fifth Plan provides for schemes for starting 2,000 *balwadis* at a cost of Rs. 10 lakhs. Besides, voluntary social service organisations are also encouraged to start new pre-primary schools.

(3) **Secondary education :** The Fifth Plan has fixed a target of opening fifteen secondary schools every year, so that by the end of the Plan period total strength of schools would be 276. The voluntary agencies will be given a loan at the rate of Rs. 25,000 per school for the expansion of secondary education. A provision of Rs. 10.00 lakhs has also been made for the expansion of existing technical schools and starting technical wings in secondary schools. The total outlay proposed for the expansion and development of non-Government secondary schools is Rs. 94.18 lakhs.

(4) **Higher education :** A provision of Rs. 5.00 lakhs has been made in the Fifth Plan for the opening and development of Science and Commerce Colleges in the district.

(5) **Teachers' training :** Additional training institutes for primary teachers would be undertaken in the Plan. The scheme will cost Rs. 1.62 lakhs and 18,000 primary teachers would be trained during the Plan period. Training scheme for pre-primary teachers will cost Rs. 1.80 lakhs.

(6) **Gram Shikshan Movement :** A scheme for eradication of illiteracy at a cost of Rs. 500 is included in the Fifth Plan. About 10,000 adults will be covered under the adult literacy programme during the Plan period.

(7) **Scouts and guides :** The District Scouts and Guides Association will be given grant-in-aid of Rs. 20,000 per year for raising troops, purchase of equipments etc. The cost of the scheme will be Rs. 1.00 lakh.

(8) **School Complex Scheme :** Under this scheme, several primary schools around the selected secondary schools will be attached to secondary schools so as to form a complex. Thus the students in primary schools will get training and guidance from the secondary schools. This scheme will cost Rs. 0.30 lakh.

(9) **Ashram schools :** With the help of a provision of Rs. 26.96 lakhs, twenty new *ashram* schools at the rate of four new schools every year will be started. The sum will be spent as a grant-in-aid to

the *ashram* schools. The vocational classes will also be started in the newly-opened *ashram* schools at the cost of Rs. 4.00 lakhs. The economic condition of *Adivasi* students in primary schools is very poor and therefore a scheme for supplying clothes to such children in primary schools at a cost of Rs. 13.00 lakhs has been included in the Fifth Plan. A scheme with an outlay of Rs. 2.50 lakhs providing free supply of text-books to the *Adivasi* students is also included in the Plan.

(10) **Libraries :** A provision of Rs. 1.05 lakhs is made for starting thirty new libraries per year during the Fifth Plan period. Accordingly by the end of the Plan 150 new libraries will be opened in the district.

ORGANISATION

Before the Zilla Parishad came into existence, education was under the control of the State Government. With the establishment of the Zilla Parishad, imparting of education in rural areas, primary education in particular and higher education in general, was transferred to the Zilla Parishad. The direction and control of education however vests with the Directorate of Education, though the implementation is done by the Parishad Education Officer. The Parishad Education Officer heads the department and acts as the Secretary of the education committee of the Zilla Parishad. He is assisted in his work by one Deputy Educational Officer, and a number of Assistant Deputy Educational Officers.

All girls' schools, whether primary or secondary, come within the purview of the Zilla Parishad. The Assistant Deputy Educational Officer visits and inspects primary schools ; whereas secondary schools are inspected by the Parishad Education Officer. The report in both the cases is forwarded to the Education Department in the State sector.

TECHNICAL EDUCATION

The Directorate of Technical Education was set up in 1948 and was entrusted with the direction and control of technical education at all levels. Until 1963 the Directorate was also conducting examinations for diploma and certificate courses offered by the polytechnics and other technical institutions in the State. A separate Board of Technical Education was, however, constituted in August 1963 to take over this responsibility.

Facilities for technical education in Thane district were introduced only after Independence. In the post-Independence period a large number of displaced persons came to the district and a production centre and a vocational training centre were started at Ulhasnagar for their benefit. These centres provided training courses for electricians, carpenters, fitters, linemen, wiremen, motor mechanics, moulders, pattern-makers, turners, welders, etc. Various other sections providing training in tailoring, weaving, hand-composing, proof-reading, etc., were also started. These centres were managed by the Union Government till 1958 when the management was transferred to the State Government.

The State Government combined these two centres into an Industrial Training Institute. In 1966-67 there were twenty-seven technical institutions in the district, of which three were Industrial Training Institutes, three Technical High Schools, three other technical institutes, three basic training centres, one part-time course for industrial workers and fourteen craft and needle craft institutes. The intake capacity in selected trades in Industrial Training Institutes in the district in 1966-67 was 1,388. In 1961, 352 students received training in these institutes. A stipend was paid to backward class students at the rate of Rs. 25 per month. The strength of Government Technical High School was 400. The Industrial Training Institute, Ambarnath, provides sixteen various types of certificate courses and its intake capacity in 1966-67 was 872; whereas the I. T. I. at Ulhasnagar provides fifteen certificate courses, its intake capacity being 336. The third I. T. I. is at Wagle Estate, Thane, which provides fifteen courses and its intake capacity is 180. The other technical institutes are situated at Jambul in Kalyan taluka and at Thane. These two are managed privately. The first institute offers course in carpentry and the latter in card-board, modelling and book-binding. A third institute at Dombivali, recognised by Government in 1967-68, provides a course for tracers.

The four technical high schools are located at Thane, Ulhasnagar, Dombivali and Bordi. The intake capacity of part-time class for industrial workers at the Government Technical High School, Thane, is 300. The craft and needle craft centres are located at Virar, Kalyan, Thane, Badlapur, Ulhasnagar, Majiwada and Palghar.

There were twenty-two training institutes in the district in 1971, of which seven were located in Thane city. All institutes except one which was a Government certified school were managed privately. The number of students in these institutes was 549 in 1969-70, as against 202 in 1965-66. The number of teaching staff was fifteen in 1965-66 and twenty-six in 1969-70. These institutions received Rs. 34,300 as grant from the Government in 1969-70.

The following statement shows the total number of students, teaching staff and expenditure of other technical institutions in the district :—

Particulars	Year	Type of institute	
		Industrial Training Institute	Technical High School
(1)	(2)	(3)	(4)
Number of students	1965-66 ..	590	955
	1969-70 ..	983	969
Number of teaching staff	1965-66 ..	77	30
	1969-70 ..	125	41
Expenditure incurred on Government institutions (Rupees in lakhs)	1965-66 ..	....	0.87
	1969-70 ..	9.64	1.77
Grants paid to non-Government institutions (Rupees in thousands)	1965-66 ..	....	10.63
	1969-70 ..	....	97.47

All the technical and industrial schools and industrial training institutes and courses leading upto diploma standard excluding those coming under the jurisdiction of the University are controlled by the Technical Education Department, Government of Maharashtra. The State Council of Technical Education advises and makes recommendations in respect of technical education, whereas the State Council of Vocational Trades carries out the policies of the National Council with regard to the award of National Trade Certificates in various trades. The Deputy Director of Technical Education for Bombay Division looks after the activities of the department in the district.

DISTRICT PUBLICITY OFFICE

The Directorate of Information and Public Relations, Maharashtra State, has a publicity office in the district headed by the District Publicity Officer. He is entrusted with the work pertaining to publicity of various schemes and activities undertaken by the State Government.

The duties of the District Publicity Officer include issue of news items and articles to the local newspapers, contacting officials and non-officials, press, etc., and informing the Government of the main currents in the public life in the district. Various means such as exhibition of documentaries, display of booklets, periodicals etc., are adopted in order to educate the public in matters relating to the schemes and activities undertaken by Government. The District Publicity Officer is also incharge of the District Information Centre.

TABLE No. 1—NUMBER OF LITERATES IN THANA DISTRICT FROM 1872 TO 1921

Name of Taluka/ Mahal	Year (2)	Population			Literates			Percentage of literates to total population		
		Persons (3)	Males (4)	Females (5)	Persons (6)	Males (7)	Females (8)	Persons (9)	Males (10)	Females (11)
Bassein	1872	61,089	31,229	29,860	2,584	2,563	21	....	....	....
	1901	80,251	41,472	38,779	4,258	4,091	167	5	10	4
	1911	79,978	40,978	39,000	4,762	4,434	328	6	11	8
	1921	82,411	42,415	39,996	5,670	4,953	717	7	12	2
Bhivandi	1872	74,267	38,505	35,762	2,930	2,889	41	....	....	....
	1901	77,440	39,588	37,852	2,852	2,780	72	4	7	2
	1911	78,654	40,230	38,424	3,653	3,470	183	5	9	5
	1921	76,399	39,240	37,159	3,496	3,086	410	5	8	1
Dahanu	1872	1,10,423	56,609	53,814	3,114	3,014	100	....	....	....
	1901	65,758	34,079	31,679	2,690	2,518	172	4	7	1
	1911	84,673	43,261	41,412	3,597	3,285	312	4	8	8
	1921	82,101	41,898	40,203	4,172	3,526	646	5	8	2
Kalyan	1872	72,556	37,691	34,865	2,844	2,755	89	....	....	....
	1901	77,087	40,019	37,068	3,103	2,912	191	4	7	1
	1911	82,543	42,955	39,588	4,254	3,855	399	5	9	1
	1921	89,867	47,476	42,391	5,834	4,935	899	7	10	2

TABLE No 1—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Murbad	..	1881	..	57,203	29,135	28,068	1,320	1,311	9	....	....
	..	1901	..	62,569	31,986	30,583	1,833	1,749	84	3	6
	..	1911	..	64,397	32,865	31,532	1,969	19,09	60	3	6
	..	1921	..	55,125	27,992	27,133	1,516	1,417	99	3	6
T'ana	..	1881	..	93,326	50,765	42,559	5,445	5,270	175	....	....
	..	1901	..	1,46,933	81,476	65,457	18,005	14,610	3,399	12	18
	..	1911	..	1,53,853	85,871	67,982	23,525	18,711	4,814	15	22
	..	1921	..	57,000	30,607	26,393	8,090	6,256	1,834	14	20
Shahapur	..	1872	..	1,00,304	57,564	48,740	1,693	1,687	6	....	....
	..	1901	..	83,881	43,260	40,621	2,206	2,166	40	3	5
	..	1911	..	86,196	43,946	42,250	2,592	2,480	112	3	6
	..	1921	..	78,096	40,110	37,986	1,917	1,715	202	2	4
Mokhada Petha..	..	1872	..	....	....	....	....	....	....	....	....
	..	1901	..	29,554	15,155	14,399	195	195	....	7	1
	..	1911	..	34,543	17,670	16,873	562	460	102	2	3
	..	1921	..	29,655	15,320	14,335	395	384	11	1	3
Wada	..	1872	..	32,420	16,917	15,503	355	351	4	....	....
	..	1901	..	41,341	21,175	20,166	1,414	1,392	22	3	7
	..	1911	..	44,372	22,839	21,533	1,121	1,081	37	3	5
	..	1921	..	39,106	20,150	18,956	1,062	1,003	59	3	5

Note.—Statistics pertaining to Panvel, Karjat and Mahim talukas is not given in this table.

TABLE No. 2—THE PERCENTAGE OF LITERATES BY AGE-GROUPS IN THANE DISTRICT, 1961

Age-group (1)	Total			Rural			Urban		
	Persons (2)	Males (3)	Females (4)	Persons (5)	Males (6)	Females (7)	Persons (8)	Males (9)	Females (10)
All ages	..	30.54	41.09	19.06	20.73	31.15	9.93	53.19	62.41
0-4
5-14	..	35.48	41.89	28.62	26.10	33.73	17.92	59.68	62.98
15-34	..	42.80	57.80	26.62	29.10	45.27	13.18	68.99	78.90
35-59	..	28.74	42.88	11.47	18.49	31.19	4.03	54.04	68.80
60 and above	..	20.39	34.99	6.14	12.82	24.40	1.83	39.29	60.28
									17.42

TABLE No. 3—EDUCATION AMONG SCHEDULED CASTES AND SCHEDULED TRIBES IN THANE DISTRICT IN 1961

Particulars (1)	Scheduled Castes				Scheduled Tribes			
	Rural		Urban		Rural		Urban	
	Males (2)	Females (3)	Males (4)	Females (5)	Males (6)	Females (7)	Males (8)	Females (9)
Population	..	6,994	4,913	3,939	2,44,110	2,38,548	9,491	8,409
Illiterates	..	4,207	2,886	3,272	2,20,549	2,35,104	7,682	7,784
Literates (without educational level)	..	1,524	901	354	18,734	3,114	1,065	440
Primary	..	1,136	1,028	298	4,777	329	714	167
Matriculate	86	11	....	....	25	17
Matriculation and above	..	127	....	....	20	1	....	....
Technical diploma not equal to degree.	1	....	....	....	....	....

TABLE No. 4—EDUCATION IN THANE DISTRICT, 1961 AND 1971

Particulars	Years			
	1961		1971	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
Population—				
Males	5,87,222	2,73,895	7,48,572	4,56,283
Females	5,64,128	2,25,433	7,06,343	3,70,466
Total	11,53,350	4,99,328	14,54,915	8,26,749
Illiterate—				
Males	4,04,306	1,02,958	4,47,073	1,51,278
Females	5,09,937	1,30,772	5,73,954	1,81,925
Literates (without educational level)—				
Males	1,05,270	58,712	1,17,764	59,803
Females	34,149	38,248	60,550	46,097
Educational level—				
Primary—				
Males	71,876	79,252	1,01,909	79,854
Females	71,876	47,949	43,050	56,801
Matriculation and above—				
Males	5,770	N.A.	N.A.	N.A.
Females	953	N.A.	N.A.	N.A.
Matriculation—				
Males	.....	26,659	21,150	66,104
Females	.....	7,104	5,382	28,878
Technical diploma not equal to degree—				
Males	.....	627	1,190	3,284
Females	.....	34	94	1,593
Non-technical diploma not equal to degree—				
Males	.....	320	960	378
Females	.....	351	388	40
University degree other than technical—				
Males	.....	3,295	1,640	8,913
Females	.....	577	398	2,977

TABLE No. 4—*contd.*

	(1)	(2)	(3)	(4)	(5)
Engineering—					
Males	...		406		1,553
Females		25
Medicine—					
Males	...		263		558
Females	...		56		150
Agriculture—					
Males	...		19		
Females		
Veterinary—					50
Males	...		8		
Females		
Technology—					
Males	...		60		included
Females	...		1		in Medicine
Teaching—					
Males	...		276		473
Females	...		270		425
Others—					
Males	...		1,040		10
Females	...		71		

TABLE No. 5—NUMBER OF INSTITUTIONS AND STUDENTS IN
THANA DISTRICT FROM 1893-94 TO 1921-22

Year	Public			Private		
	Institutions	Primary schools		Institutions	Elementary schools	
		Boys	Girls		Boys	Girls
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1893-94 ..	233	13,021	841	121	1,595	209
1901-02 ..	216	10,829	794	40	899	....
1911-12 ..	320	15,329	2,866	8	421	148
1921-22 ..	442	20,676	5,360	8	48	....

**TABLE No. 6—NUMBER OF INSTITUTIONS AND STUDENTS
IN EX-JAWHAR STATE**

Class of Institutions	Years			
	1893-94	1901-02	1911-12	1921-22
(1)	2)	(3)	(4)	(5)
Primary schools	10	6	17	19
Pupils—				
Males	280	284	476	817
Females	16	4	61	40

**TABLE No. 7—TALUKA-WISE NUMBER OF PRIMARY SCHOOLS,
TEACHERS AND STUDENTS IN THANE DISTRICT FOR
1951, 1956 AND 1961**

Taluka	Year	Number of primary schools	Number of teachers	Number of students		
				Total	Boys	Girls
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dahanu	.. 1951	195	326	13,025	9,444	3,581
	.. 1956	155	399	13,348	9,271	4,077
	.. 1961	228	423	15,239	10,379	4,860
Mokhada	.. 1951	53	69	2,498	1,675	823
	.. 1956	58	75	2,392	1,748	644
	.. 1961	70	88	2,576	1,777	799
Jawhar	.. 1951	44	60	2,042	1,621	421
	.. 1956	107	120	3,570	2,908	662
	.. 1961	114	147	4,425	3,225	1,200
Palghar	.. 1951	133	325	12,513	7,992	4,521
	.. 1956	158	431	15,798	9,983	5,815
	.. 1961	205	597	25,761	14,444	11,317
Wada	.. 1951	55	83	2,235	1,634	601
	.. 1956	116	145	3,251	2,258	993
	.. 1961	132	185	6,392	4,347	2,045
Vasai	.. 1951	102	323	14,202	8,366	5,836
	.. 1956	115	382	16,098	9,785	6,313
	.. 1961	124	516	22,842	13,023	9,819
Bhivandi	.. 1951	91	188	7,745	4,897	2,848
	.. 1956	153	294	11,556	7,625	3,931
	.. 1961	165	346	15,697	10,050	5,647
Shahapur	.. 1951	94	140	3,985	2,388	1,597
	.. 1956	157	219	8,295	6,082	2,213
	.. 1961	187	290	11,193	7,700	3,493
Murbad	.. 1951	112	152	5,337	3,967	1,370
	.. 1956	141	186	4,949	3,175	1,774
	.. 1961	179	260	8,911	5,198	3,713

TABLE No. 7—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Kalyan	..	1951 ..	100	290	11,587	7,702	3,885
		1956 ..	223	697	29,756	11,119	10,637
		1961 ..	263	883	36,619	22,361	14,258
Thane	..	1951 ..	68	290	11,519	8,953	2,566
		1956 ..	67	344	15,103	9,001	6,102
		1961 ..	78	385	14,852	9,018	5,834
District Total	..	1951 ..	1,047	2,246	86,688	58,639	28,049
		1956 ..	1,450	3,292	1,24,116	80,955	43,161
		1961 ..	1,745	4,120	1,64,507	1,01,522	62,985

TABLE No. 8—TALUKA-WISE SECONDARY SCHOOLS, STUDENTS AND TEACHERS IN THANE DISTRICT IN 1951 AND 1961

Taluka			Year	Number of institutions	Total students	Teachers
(1)			(2)	(3)	(4)	(5)
Dahanu	..	..	1951	4	1,201	59
			1961	5	2,594	102
Mokhada	..	..	1951	....	....	....
			1961	1	43	2
Jawhar	..	..	1951	1	17	1
			1961	1	148	6
Palghar	..	..	1951	4	797	38
			1961	8	2,095	87
Wada	..	..	1951	1	144	9
			1961	1	257	9
Vasai	..	..	1951	5	1,819	69
			1961	11	5,100	183
Bhivandi	..	..	1951	2	583	23
			1961	5	1,641	92
Shahapur	..	..	1951	1	139	9
			1961	1	474	25
Murbad	..	..	1951	1	43	2
			1961	1	175	9
Kalyan	..	..	1951	13	5,080	191
			1961	30	13,122	438
Thane	..	..	1951	9	3,243	128
			1961	18	8,353	299
District Total	..	..	1951	41	13,066	529
			1961	82	34,002	1,252

TABLE NO. 9—HIGHER EDUCATION IN THANE DISTRICT, 1974-75

Name of college	Year of establishment	Number of students			Number of backward class students		Teachers
		Boys	Girls	Total	S.C.	S. T.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
R. K. Talreja College of Arts, Science & Commerce, Ulhasnagar.	1961 ..	1,385	593	1,978	120	21	60
Smt. Chandibai Mansukhani College, Ulhasnagar.	1965 ..	1,146	545	1,691	15	2	59
Bhivandi-Nizampur Nagarpalika Arts, Science and Commerce College, Bhivandi.	1966 ..	741	156	897	50	50	44
Vidya Prasarak Mandal's Arts, Science and Commerce College, Thane.	1969 ..	2,280	1,002	3,282	65	22	71
Annasaheb Vartak College of Arts and K.M. College of Commerce and E.S. Andrades College of Science, Vasai.	1971 ..	554	209	763	26	25	33
Birla College of Arts, Science and Commerce, Shahad.	1971 ..	1,019	485	1,504	86	3	41
Sonopant Dandekar Arts College and V. S. Apte Commerce College, Palghar.	1970 ..	560	139	699	10	18	28
Seva Sadan's College of Education, Ulhasnagar.	1966 ..	177	104	281	18	4	23
Principal K. M. Kundani College of Pharmacy, Ulhasnagar.	1971 ..	240	22	262	16
Law College, Thane	.. 1972 ..	385	71	402	8	2	7

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CHAPTER 16 — MEDICAL AND PUBLIC HEALTH SERVICES

EARLY TIMES

THE GROWTH OF MEDICAL FACILITIES AND MEDICAL CONSCIOUSNESS IN the rural areas are of recent origin. In the past, about a century ago, the population was not health-conscious and the occurrence of a disease was attributed to some evil influence and the cure was sought through spiritual and totemic remedies. The *vaidyas*, *vaidus* and *hakims* dominated the medical profession. The *vaidyas* used to treat the patients as per the *ayurvedic* system of medicine. Their knowledge was a combination of medical and physiological know-how that they inherited from their *gurus* and fore-fathers, as also from practical experience. The *vaidyas* were respected mostly in the rural areas and their medicines were cheap. The practice followed by *vaidus* was not different from that of *vaidyas*. However, the *vaidus'* diagnosis was based mostly upon the symptoms, while that of *vaidyas*, upon the study of physiology. The *vaidus* used to move from place to place treating patients with rare herbs possessing rich mineral properties. They occasionally used to treat live-stock in the absence of any specialised veterinary practitioners.

During the last few decades, the allopathic system of medicine has made considerable headway in the treatment of the sick and the invalid. However, due to the intrinsic value of the indigenous systems of medicine, efforts are being made at Government level to revive them. With the advancement of the medical knowledge, the uncontrollable diseases like plague have been completely eradicated and the people have come to place more reliance on medical care and cure.

BIRTHS AND DEATHS

Table No. 1 shows the number of births and deaths in the district since 1866.

The total number of deaths in sixteen years ending 1981, as shown in the Sanitary Commissioner's yearly report, was 15,332 or seventeen per thousand. During eleven years ending 1881, the number

of births was returned at 1,90,050 souls or an average yearly birth-rate of 18,679 souls or twenty per thousand. The death-rate per mille in 1872 was recorded as 36.36 for males and 39.44 for females. The maximum and minimum number of male-births to 1,000 female-births in ten years from 1881 to 1890 were 105.85 and 103.43, respectively.

Table No. 2 shows the ratios of births and deaths since 1925 for a few years. Table No. 3 gives statistics of deaths due to other diseases from 1969 to 1974 while table No. 4 shows figures of infant mortality in the district for a few years since 1925.

COMMON DISEASES

The diseases common in the district are malaria, cholera, small-pox and other fevers. Malarial bloodlessness and scurvy also largely prevail and complicate nearly every disease that comes under treatment. Many of the people in the district are under-fed and under-clothed, and indulge in country liquor. The fondness for liquor is one of the causes of the poor physique and meagre appearance of many of the poorer classes in Thane. Syphilis, gonorrhoea, and skin diseases are common. Children suffer from intestinal worms, round as well as thread worms. Guineaworm which was endemic in the past is prevalent even now. Epidemics of cholera used to be frequent. They still occasionally occur, but the sanitary measures introduced have diminished the virulence of the out-breaks. The chief causes of diseases in the district are impure air, scanty and impure water, scanty and improper food, and scanty clothing. As regards food, rice is often taken in excessively large quantities causing chronic dyspepsia and swelling and weakening of the stomach.

Malaria: Malaria is an endemic disease prevalent in the district as also in other parts of the region. The heavy rains and existing conditions cause breeding of mosquitos. The old *Thana District Gazetteer*, published in 1882, has the following to say about the occurrence of the disease :—

“Intermittent fevers of the daily-recurring or quotidian type are the prevailing affections, the hospital returns showing about 25 per cent of fever cases. Remittent fever is comparatively rare when it does occur it is complicated with jaundice and congested liver or spleen. During 5 years ending 1870, the number of deaths caused by fever averaged 5,393. In 1871, it rose to 12,763 or nearly four times the number in 1867. During 10 years ending 1881 deaths from fever averaged 14,352, the total varying from 17,109 in 1881 to 11,678 in 1875.”

The statistics relating to malaria since 1925 are given below :—

Year	Deaths due to Malaria	Year	Deaths due to Malaria
1925	... 1,006	1955	... 1,127
1930	... 1,206	1961	... 799
1935	... 2,290	1965	... N.A.
1940	... 1,871	1971	... 113
1945	... 1,615	1974	... 55
1951	... 1,151		

N.A. = Not available.

A scheme for eradication of malaria was introduced in the district in 1948 and was continued till the year 1951. During this period 1,404 villages were covered under the scheme. The quantity of preventive and curative material used amounted to 41,615 lbs. of DDT Tech. and 10,060 lbs. of 50 per cent DDT wettable.

During 1951-52, 1,905 children were examined, of whom 96 were recorded to be positive cases. The cumulative spleen rate for the entire district in the same year was only 5 per cent as against 39.5 per cent in 1946-47 when the district was surveyed. The number of malaria patients treated in the public dispensaries, underwent further reduction. The data for 25 dispensaries in the district is shown below :—

Year	Patients treated	Year	Patients treated
1946	... 56,169	1949	... 42,012
1947	... 59,243	1950	... 39,529
1948	... 59,068	1951	... 32,910

An intensive drive against malaria was launched in 1953 under the national malaria eradication programme. All the villages were covered under this scheme except the municipal towns where DDT spraying was undertaken by the respective municipalities. The DDT powder was supplied free of charge. During the First Plan period all the villages in the district were visited by the malaria surveillance staff. Some 25,000 houses were sprayed with DDT and 9,906 malaria cases were treated. Focal spraying of villages and localities where positive cases were detected through surveillance operations was done systematically since January 1962 and is being continued as a regular routine. In 1961-62 an additional third round of spraying was given to twenty-four villages in Jawhar and seventeen villages in Mokhada talukas with a population of 24,274. During the same period, 52,783 fever cases were detected, of which 51,096 were given preventive treatment.

In 1961 the incidence of deaths registered from malaria in the district was put at 799.

Filaria : The main affected areas of Thane district are Vasai, Palghar and Dahanu talukas. Under the national filaria control programme, control units were established for a block of 3,00,000 population. Under the scheme, spraying was undertaken once in a year in urban area and thrice in rural area. Similarly mass treatment of populace by drugs such as disthylcarbazine was also undertaken. In the district one such unit was functioning at Vasai for the coastal area from Vasai to Dahanu. This covered a population of 1,76,680 from four villages of Thane taluka, one town and twenty-nine villages of Vasai taluka, one town and four villages of Palghar taluka and one town and twenty-four villages of Dahanu taluka.

Plague : The first indigenous case occurred early in December 1896, though imported plague was detected as early as the first week of October of that year. Bandra was the first to suffer; and the disease spread to Bhivandi, Bhayandar, Thane, etc., in rapid succession. By degrees the whole district became affected. The total mortality upto the end of 1903-04 was 20,316 or 2.5 per cent of the total population. The following statement shows the statistics relating to cases and deaths from plague for a few years from 1896-97 :—

Year	Cases	Deaths
1896-97	4,129	3,371
1900-01	3,247	2,827
1903-04	1,048	812
1907-08	857	577
1910-11	1,048	851
1913-14	554	459
1917-18	1,236	948
1921-22	153	134

In the year 1925 and 1930, 168 and 166 deaths were reported from plague. In 1951 only five deaths were reported from plague. That was perhaps the last incidence of deaths due to plague. The eradication of this disease was due to the numerous measures undertaken by the Government.

Cholera : The old *Thana District Gazetteer* has to say the following about cholera :—

“ No details are available of the severe out-breaks of small-pox and cholera in 1819 and 1820 which so lowered the number of the people that for ten years the population is said not to have recovered its former strength. The records of the sixteen years ending April 1882 show that cholera was absent only in 1873 and 1874. In 1873 there

was a very fierce outbreak of cholera The total number of deaths in the year was 5,969. The peculiar feature of the outbreak was the large area affected; few villages escaped. At Thana the attack was most virulent and bonfires of sulphur and pitch were kept burning day and night at a daily cost of £ 25 (Rs. 250). The attack was favoured by the filthy state of the town, the scanty and impure water, and the defective drainage. In 1876 cholera prevailed in all months except March, April and November. The disease was mostly confined to Mochis, Dublas, Varlis, Kamlis, Mangelas and Dheds who are generally poor, badly fed, much given to liquor-drinking and whose habits are dirty. No accurate records of the seizure and deaths in this outbreak are available.

In 1877 cholera prevailed from April to December in Panvel, Thana, and Kalyan. In 1878 cholera prevailed throughout the year. The largest number of deaths was recorded in July and the smallest in December. In 1879 cholera began in April in Bassein and continued till the close of the year. In 1880 it prevailed during the first four months causing seventy deaths, of which forty were registered in February and four in March. In 1881 cholera prevailed from April to November, the largest number of cases having been registered in August and the smallest in October and April. During the current year (1882) cholera visited Salsette and Panvel in January, Kalyan and Karjat in February and Bhivandi in March. It thus appears that cholera is almost never absent from the Thana district; that now and then it assumes an epidemic form; and that the progress of the epidemic seems to depend on the frequency of human intercourse not on neighbourhood."

The following statement shows the total deaths from cholera since 1866 :—

Year	Deaths due to Cholera	Year	Deaths due to Cholera
1866	.... 66	1935	... 349
1875	... 5,969	1945	... 600
1895	... 53	1955	... ..
1905	... 33	1965	... 1
1915	... 48	1975	... 11
1925	... 5		

With a view to prevent the spread of cholera various steps such as mass anti-cholera inoculation and isolation and treatment of cholera cases are undertaken. Temporary cholera regulations under the Epidemic Diseases Act, 1897, are applied to the affected areas in order

to enable the staff to push on mass inoculation campaign without public opposition.

Small-pox: The old *Thana Gazetteer* gives the following details about the incidence of small-pox in the district :—

“Small-pox still prevails in the Konkan, but the epidemics are rarer and less virulent than they used to be. In 1877, of 27,369 deaths from small-pox in the Bombay Presidency 1,301 were registered in Thana. The corresponding returns were in 1878 eighty one out of 4,475 ; in 1879 five out of 1,156 ; in 1880 five out of 940 ; and in 1881 sixteen out of 539.

From year to year the mortality returns show a marked variation in the ravages of diseases. In the year 1873 the death rate in the Thana district was 33.22 per thousand though the year was elsewhere healthy ; in 1876 in the whole of the district it was 19.42 per thousand and in 1877, 27.86 per thousand ; in 1878 it was 24.74 ; in 1879, 20.66 and in 1880, 20.22. In the Sanitary Commissioner's report for 1880 the mean annual mortality for the previous fourteen years is given as 17.53 per thousand. The greatest mortality is from fevers. This in 1879 was as much as 16.76 and in 1880 as much as 17.70 per thousand. During the fourteen years ending 1880 the deaths from fever averaged 12.74 per thousand.”

The total deaths from small-pox since the year 1866 are shown in the following statement :—

Year	Deaths due to small-pox	Year	Deaths due to small-pox
1866	... 71	1935	... 368
1875	... 286	1945	... 226
1895	... 53	1955	... 56
1905	... 579	1965	... 246
1915	... 94	1975	... Nil
1925	... 234		

The incidence of small-pox which steadily increased during the last four years of the decade 1940-1950 assumed epidemic proportions in the following period. In 1951, 94 deaths were reported as against 283 in 1961, of which 226 were from rural areas. The death ratio per 1,000 of estimated population in 1951 was put at 0.59 as against 0.01 in 1961. In 1969 the number of deaths due to small-pox in the district stood at 87. As a precautionary measure inoculations were intensively carried out. In 1965, 2,20,104 persons were inoculated as against 1,83,925 in 1966. The taluka-wise number of deaths from 1965 is shown in table No. 5.

Leprosy : The main aspect of the control of this disease is through the out-patient treatment. The patients suffering from leprosy are encouraged to go in for proper treatment as early as possible without fear. For this purpose health education and propaganda are carried out through instructive and attractive methods. An intensive anti-leprosy drive was launched in 1961. The survey, education and treatment units were established in the district, each unit having a covering capacity of 30,000 persons.

Out of fourteen asylums in the then Bombay Province in 1911 one was situated at Trombay, then part of Thane district, with 23 inmates. The number of lepers in every 1,00,000 persons in 1881, 1901, 1911, 1921 and 1931 was put at 61, 14, 47, 39 and 33, respectively. The Census of 1931 recorded 4,000 persons as lepers in the district. The number of patients treated in leprosy asylums is shown in the following statement :—

Year	Outdoor patients	Indoor patients
1946	55	1
1949	38	...
1951	63	...
1955	1,206	...
1957	349	...

The disease is particularly prevalent in Jawhar taluka. A leprosy control unit was set up at Wada to cater to the needs of 96 villages with a projected population of 56,581 in Wada taluka and certain other parts of Jawhar taluka, and 279 leprosy patients were treated at this centre during the Second Plan period. There was also a private leprosy centre at Vadavali in the Talasari taluka. The Kalyan Municipal Council and the Health Centre, Palghar, were also running such centres. The incidence of this disease per thousand population in the district in 1961 was 6.56 which ranked second in the Bombay Division. During 1970-1974 period 2,915 patients were treated in sixteen centres run by the Zilla Parishad. Besides this, three centres conducted by the State Government are functioning in the district.

Guineaworm : Guineaworm is endemic in Thane due to bathing or washing in or wading through streamlets and ponds containing its minute germs. In 1961, forty villages in the district having a population of 18,279 reported guineaworm. Out of 465 guineaworm infection cases, 115 were given medical treatment. To prevent further spread of the disease wells, ponds, tanks, etc. were disinfected. In the year 1966 there were 1,060 cases of guineaworm as against 791 in 1967 and 742 in 1968. A large number of such cases were reported from the Murbad taluka, the incidence being 474, 331 and 120 in 1966, 1967 and 1968, respectively.

VACCINATION

The old *Gazetteer of Thane District* states that the work of vaccination was carried on in 1881-82 under the supervision of the Deputy Sanitary Commissioner, Konkan Registration District, with sixteen vaccinators. Of the operators, thirteen were distributed over the rural parts of the district, two for each of the sub-divisions of Dahanu and Shahapur and one for each of the other nine sub-divisions. Of the three remaining operators one was posted in Thane, one in Panvel and Uran, and one in Kalyan and Bhiwandi. Vaccination was also practised by the medical officers of twelve dispensaries located in the district. The total number of persons vaccinated was 23,726, besides 1,007 re-vaccinated in 1881-82 as compared with 11,284 vaccinations carried out in 1869-70. The total cost of these operations in 1881-82 was Rs. 8,230.

The position of primary vaccination and re-vaccination after 1893 is shown in the following statement.

VACCINATION STATISTICS, THANE DISTRICT

Year	Particulars	
	Primary Vaccination	Re-vaccination
1893-94	19,754	873
1900-01	15,359	654
1910-11	21,176	1,592
1920-21	14,557	578
1930	22,398	3,635
1940	27,181	12,919
1951	41,098	64,939
1961	48,174	3,67,175
1971	94,049	2,00,980
1975	86,404	1,57,918

FAMILY PLANNING

The family planning campaign was launched in 1961 with the intention of controlling the rate of population growth. The emphasis was laid on opening new family planning centres where the people could be given the necessary advice and treatment. The district family planning bureau was established in 1963 and the family planning scheme was transferred by the State Government to this bureau in 1966 on an agency basis.

The family planning programme at present is implemented in three phases, viz., population education through propaganda, distribution of contraceptives for prolonging conception, and sterilisation through vasectomy and tubectomy operations.

During 1975-76, eighteen rural family planning centres and 66 sub-centres were entrusted with the work. In addition to these, four centres were working in urban areas of the district.

The progress of work in Thane district under this scheme since 1961 for a few years is shown below :—

Year	Achievement		
	Vasectomy operations	Tubectomy operations	Total
1961-62	269	64	333
1963-64	428	72	500
1965-66	235	312	547
1967-68	8,795	911	9,706
1969-70	9,222	2,146	11,368
1971-72	18,406	3,618	22,024
1973-74	4,562	4,532	9,094
1975-76	22,927	8,729	31,656

The rate of sterilisation according to the 1971 Census figures of population was 33.48 per 1,000.

The I.U.C.D. insertion programme was started in the district in 1965-66 while the free distribution of contraceptives was started in 1968-69. The achievement under these programmes can be seen from the following statistics :—

Year	I.U.C.D. insertion	Contraceptives			
		Condom (in dozens)	Diaphragm	Jelly	Foam tablets
1965-66	7,832	....	....	....	....
1967-68	1,813	....	....	....	....
1969-70	418	84,254	87	214	....
1971-72	202	20,961	26	125	269
1973-74	137	....	....	....	....
1975-76	470	....	....	....	....

The expenditure on family planning is borne by the State Government. On an average the expenditure on sterilisation, viz., vasectomy and tubectomy comes to about Rs. 46 and Rs. 73 per case, respectively. In case of I.U.C.D. it is Rs. 11 per case. The Zilla Parishad also provides funds to the extent of Rs. 10,000 for family planning work. The employees doing commendable family planning work are given prizes from this fund.

The block-wise figures of sterilisation for the year 1975-76 are shown below :—

Block	Total Sterilisation	
Mokhada	...	1,700
Thane	...	6,506
Shahapur	...	2,292
Wada	...	1,157
Kalyan	...	3,801
Bhivandi	...	3,280
Talasari	...	651
Ulhasnagar	...	3,340
Jawhar	...	1,114
Vasai	...	2,436
Murbad	...	1,105
Dahanu	...	2,054
Palghar	...	2,220
District total	...	31,656

The area-wise figures of sterilisation in 1975-76 were as given below :—

	Vasectomy	Tubectomy
Cases coming from rural areas	16,447	5,978
Cases coming from urban areas	6,480	2,751
Total	22,927	8,729

HOSPITALS AND DISPENSARIES

The old *Thana District Gazetteer* mentions the existence of dispensaries at Thane, Vasai, Bhivandi, Chinchani and Kalyan in 1881,

besides one hospital at Thane. In 1881, 1,03,680 patients were treated, 566 of them in-door and 1,03,114 out-door. The total amount spent in checking the disease in the same year was Rs. 47,280.

The figures of out-door and in-door patients treated are shown in table No. 6 for the period 1946 to 1966.

General Hospital : The Vitthal Sayanna Sarvajanic Hospital, now called General Hospital, Thane was established in 1836. In 1961 the bed-strength of this hospital was 104 and it provided a separate ward of twenty beds for the ophthalmic patients. The bed-strength rose to 200 in 1968-69, of which surgical beds accounted for 63 and maternity beds for 40. The hospital, at present, provides X-ray facilities. Besides, a nursing school and anti-rabic centre work under it. The patients covered under Employees' State Insurance Scheme, which was started in 1954, also get all the facilities free of charge in this hospital.

The Civil Surgeon, the head of the General Hospital, controls six dispensaries and two cottage hospitals in the district. In addition to this hospital, there is one Mental Hospital, established in 1901, at Thane and is administered by Government.

Dispensaries : The classification of dispensaries and patients treated therein in the years 1946, 1951, 1955 and 1958 is shown in the following statement :—

Year	Classification of dispensaries		Patients treated			
	Ayurvedic	Allopathic	Males	Females	Children	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1946	6	11	20,192	10,412	17,197	47,801
1951	7	7	21,877	12,327	18,101	52,305
1955	8	9	28,028	17,828	25,741	71,597
1958	15	5	28,419	19,689	26,890	74,998

In 1960 there were 22 government or government-aided dispensaries located at various places in the district. The number rose to 32 in 1961, out of which five were run by Government, and 27 by District Local Board, then in existence, and municipalities.

In the year 1970 there were eight hospitals and 35 dispensaries in the district, the bed-capacity of which was 2,579. In 1974 the number of public and public-aided hospitals and dispensaries rose to 59 including five general hospitals with a total bed-capacity of 2,771.

All the allopathic and ayurvedic dispensaries are run by the Zilla Parishad, Thane. The following statement shows the block-wise list of dispensaries during 1975 in Thane district :—

Block	Dispensaries	
	Allopathic	Ayurvedic
Dahanu	.. (1) Chincholi. (2) Gholvad. (3) Dapehari.	(1) Ashagad. (2) Badapokharan.
Talasari	.. ..	(1) Udhava.
Mokhada	.. (1) Mokhada.	..
Jawhar	.. (1) Bandhan.	..
Wada	.. (1) Wada. (2) Khanivali. (3) Kudus.	.. .. ..
Shahapur	.. ..	(1) Dolkhamb.
Murbad	.. (1) Murbad. (2) Shiroshi. (3) Vaishakhare.	(1) Mhasa.
Vasai	.. (1) Mandavi. (2) Sopara.	.. ..
Bhivandi	.. (1) Khambale.	..
Palghar	.. (1) Kelva-Mahim. (2) Satpati. (3) Boisar. (4) Dandi.	(1) Dahisar. (2) Yedvan.
Kalyan	.. ..	..
Thane	.. (1) Ovale.	(1) Ghancholi.
Ulhasnagar	.. ..	..

PRIMARY HEALTH CENTRES

The problems connected with the question of health and sanitation are also looked after by primary health centres and the sub-centres. In these centres curative as well as preventive service, family planning, environmental sanitation and school health service are provided. In 1960 there were only six primary health centres. This number rose to sixteen in 1961 and seventeen in 1966.

The details of block-wise primary health centres and the work done by them are shown in table No. 7.

Each primary health centre is controlled by one medical officer assisted by other necessary staff including nurses and midwives. In 1968 there were sixteen medical officers, fifteen sanitary inspectors and 67 midwives and nurses working in these primary health centres.

SET UNITS AND SMP CENTRES

In 1968 there were 19 SET units and 25 SMP centres working in the district. Except Mokhada, every taluka had such SET units. During 1975 the number of SET units rose to twenty, while that of SMP centres remained the same. The block-wise distribution of SMP centres was : Bhivandi, Shahapur, Wada and Vasai-3 each ; Thane, Palghar Jawhar, Murbad and Kalyan-2 each ; Talasari Dahanu and Mokhada-one each.

MATERNITY AND CHILD HEALTH

In 1955, the then Government of Bombay established a maternity and child health bureau in the Directorate of Public Health. The maternity and child health work in rural areas is integrated with the primary health centres and public health units. Services like ante-natal, post-natal, child care, school health and health education are provided at these centres. A combined medical and public health unit serves an area of four to ten villages within a radius of three to five miles, and having a population of eight to ten thousand. Such a unit was set up at Palghar. The unit was controlled by a health visitor assisted by a midwife and a trained *dai*.

There were two maternity and child health centres and eighteen maternity homes in Thane district during 1975. The location of these maternity homes is shown below :—

Block	Maternity homes
Thane ...	Ovale.
Bhivandi ...	Vajreshwari.
Palghar ...	Kelva-Mahim, Satpati and Boisar.
Dahanu ...	Chinchani and Gholwad.
Mokhada ...	Mokhada.
Shahapur ...	Shahapur, Kinavali and Washind.
Murbad ...	Murbad and Shiroshi.
Wada ...	Wada and Kudus.
Vasai ...	Mandvi and Sopara.
Ulhasnagar ...	Badlapur.

DRINKING WATER SUPPLY

As regards water-supply to the towns and villages, seven towns had piped water supply in 1961, fifty villages drew drinking water from rivers, seventeen villages from *nallas*, two towns and four villages from tanks, ten towns and 934 villages from wells, and one town and 594 villages had more than one of these sources. The water-supply was not adequate in summer season in seven towns and 550 villages in the district. Under the scheme of village water-supply, fourteen new wells were constructed in 1951 in the district.

In 1965-66, nine towns in the district had piped water supply, of which two each were in Thane, Kalyan, Shahapur and Bhivandi panchayat samitis and one in Wada panchayat samiti. There were 307 inaccessible villages in the district, out of which twenty villages were already provided with water-supply in the Fourth Plan. A provision of Rs. 287.50 lakhs has been made in the Fifth Plan for water-supply scheme. Out of 1,588 total villages in the district, 307 villages will be covered under special measures and 1,281 villages to be attended to under simple measures for supply of adequate drinking water.

HEALTH SERVICES

The following statement shows the position of health services in the district for a few years from 1951 :—

Year	Medical graduates	Medical licentiates	Sanitary Inspectors	Vaccinators	Other health staff (technical)
(1)	(2)	(3)	(4)	(5)	(6)
1951 ..	1	3	21	24	32
1956 ..	3	2	33	24	....
1961 ..	6	1	38	20	29

In 1961, the total number of persons working as physicians, surgeons, dentists, nurses, and other medical and health technicians in the district was 2,177. Out of them 594, including 76 females, were physicians, surgeons and dentists, as against 1,583, including 501 females, working as nurses, and other medical and health technicians. During the same year out of 594 surgeons and dentists, 180 were working in rural areas as against 414 in urban areas of the district. The position of nurses and other technical staff was 327 for the rural areas and 1,256 for the urban areas, respectively. The number of medical personnel per lakh population in the district was 36 as against 54 for the entire State of

Maharashtra. In the year 1965-66 the number of doctors, *vaidyas* and nurses stood at 738 and 189, respectively. During 1971 there were 168 doctors and 379 nurses in public and public-aided hospitals in the district. So far as the medical and public health staff working under the Zilla Parishad is concerned there were, during 1975, 36 doctors, 210 nurses and 122 vaccinators.

Organisation : The medical and public health activities in the district are under the control of the State Government and the Zilla Parishad. The Civil Hospital at Thane is controlled by the Civil Surgeon. The health department's work in the district is within the purview of the Zilla Parishad. A subject committee of the Zilla Parishad looks after it. The District Health Officer works as the secretary of the committee as well as the officer in charge of health activities in the district.

Expenditure : During 1964-65 the receipts of Zilla Parishad, Thane, on account of medical and public health amounted to Rs. 46,906, while the expenditure was put at Rs. 9,72,277. In 1973-74 the revenue and expenditure of Zilla Parishad on the same account was Rs. 84,000 and Rs. 32,48,000, respectively.

Fifth Five-Year Plan Schemes : In order to improve the general health standards, it is necessary to develop the present dispensaries and hospitals. Accordingly the Plan includes schemes of development of the existing health centres and hospitals and opening of new ones in the district. The total outlay on public health in the Fifth Plan is Rs. 140.71 lakhs. The major schemes included in the Plan are described below :—

(1) *Primary Health Centres :* A scheme of starting three new primary health centres at Wada, Shahapur and Murbad costing Rs. 17.63 lakhs is included in the Plan. A scheme for construction of buildings for 67 sub-centres including 24 new ones with a total outlay of Rs. 13.40 lakhs is also included. The scheme of upgrading of the primary health centres at Navghar and Padgha will cost Rs. 22.80 lakhs which includes expenditure on construction of operation theatres, provision of laboratory, additional staff, etc.

(2) *Cottage Hospitals :* The schemes of providing ambulance to the cottage hospital, Jawhar and construction of sixteen-bedded maternity ward at cottage hospital, Dahanu, are included in the Plan. The total outlay will be Rs. 1.08 lakhs and Rs. 5.07 lakhs respectively.

(3) *Civil Hospital, Thane :* A scheme of construction of a 100-bedded hospital building attached to the Civil Hospital, Thane, will cost Rs. 20.00 lakhs. The present strength of beds is 84. A scheme of

construction of a 25-bedded isolation ward in the Hospital is also included in the Plan with a total outlay of Rs. 8.00 lakhs.

(4) *Additional Hospital*: Due to industrialisation, the population of Ulhasnagar is increasing rapidly. A new building for central hospital at Ulhasnagar is felt quite necessary. A provision of Rs. 4.04 lakhs has been made in the Plan for construction of a building. A cottage hospital will also be started at Shahapur with an outlay of Rs. 5.00 lakhs.

(5) *Mini Primary Health Centre*: A scheme of shifting eighteen rural family planning centres to the places within the jurisdiction of primary health centres and converting them into mini primary health centres is envisaged in the Plan. The cost of the scheme is estimated at Rs. 2.40 lakhs.

TABLES

TABLE NO. 1—NUMBER OF BIRTHS AND DEATHS IN
THANE DISTRICT

Year	No. of births registered	No. of deaths registered	Year	No. of births registered	No. of deaths registered
1866	.. .. .	5,707	1930	.. 25,617	19,502
1870	.. .. .	9,717	1935	.. 27,023	18,730
1875	.. 18,803	21,030	1940	.. 26,724	17,141
1880	.. 23,461	17,131	1945	.. 26,404	15,922
1895	.. 23,874	21,526	1951	.. 28,973	12,977
1900	.. 20,940	58,670	1955	.. 41,399	15,362
1905	.. 27,294	24,538	1960	.. 34,561	13,801
1910	.. 31,386	24,326	1965	.. 37,802	13,254
1915	.. 32,832	22,071	1970	.. 37,493	11,361
1920	.. 21,587	31,284	1974	.. 42,318	11,506
1925	.. 22,504	16,188			

TABLE No. 2—RATIO OF BIRTHS AND DEATHS

Year	Ratio of births per 1,000 population		Mean ratio of births per 1,000 during previous five years	Ratio of deaths per 1,000 population		Mean ratio of deaths per 1,000 during previous five years
	Males	Females	Total	Males	Females	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1925 ..	15.52	14.21	30.17	22.09	20.65	27.04
1930 ..	17.48	16.37	33.73	25.70	25.84	22.51
1935 ..	16.46	15.84	33.65	22.30	22.48	20.97
1940 ..	16.50	15.44	32.33	21.08	19.87	23.23
1945 ..	13.93	13.17	27.50	17.20	15.44	16.19
1950 ..	12.71	11.73	22.85	11.48	10.64	15.58
1955 ..	12.30	11.70	21.10	9.00	8.70	8.90
1961 ..	11.8	10.4	19.2	N.A.	N.A.	8.7

N.A. — Not available.

TABLE No. 3—NUMBER OF DEATHS DUE TO DIFFERENT DISEASES

Year	Tuber- culosis	Pneum- onia	Dysentery and Diarrhoea	Typhoid	Cancer	Respiratory diseases
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1969 ..	536	267	455	53	120	717
1970 ..	421	144	330	53	142	696
1971 ..	467	115	373	54	135	839
1972 ..	447	159	283	39	157	721
1973 ..	409	166	205	10	133	498
1974 ..	411	125	273	19	135	541

TABLE No. 4—STATISTICS RELATING TO INFANT MORTALITY
IN THANE DISTRICT

Year		Not exceeding one month	Above one month and below six months	Above six months and below one Year	Total
(1)		(2)	(3)	(4)	(5)
1925	..	1,654	1,396	508	3,558
1930	..	1,678	1,464	675	3,817
1935	..	1,607	3,117	2,135	6,859
1940	..	1,482	1,061	553	3,096
1945	..	1,009	880	455	2,344
1951	..	1,264	946	1,013	3,223
1956	..	1,383	721	585	2,689
1961	..	1,338	380	468	2,186
1965	..	N.A.	N.A.	N.A.	2,002
1971	..	N.A.	N.A.	N.A.	1,392
1974	..	..	..	..	1,162

N.A. - Not available.

TABLE No. 5—DEATHS FROM SMALL-POX IN THANE DISTRICT

Taluka	Year							
	1966		1967		1968		1969	
	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Thane ..	160	52	4	1	40	8	13	4
Kalyan ..	192	80	4	1	48	9	20	5
Wada ..	112	36	9	2	..	..	..	..
Shahapur ..	97	23	2	1	31	6	7	3
Vasai ..	117	37	3	1	..	..	9	..
Bhivandi ..	17	7	15	1	31	10	251	51
Jawhar ..	4	1	10	2	1	..	..	..
Palghar ..	31	10	15	1	10	..	..	..
Talasari ..	2	..	2	..	4	..	..	..
Murbad ..	..	..	..	..	26	2	69	16
Dahanu ..	..	..	..	..	..	..	..	..
Mokhada ..	..	..	..	..	..	..	..	..
Total ..	732	246	64	10	191	35	369	79

TABLE No. 6—NUMBER OF BEDS AND PATIENTS TREATED IN THE DISTRICT

Year	Number of patients treated								Total patients treated	Number of beds		
	Indoor				Outdoor					Males	Females	
	Males	Females	Children	Total	Males	Females	Children	Total				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1946	2,722	2,680	1,635	7,037	55,710	35,867	56,037	1,47,614	1,54,651	93	90
1951	3,166	2,550	1,588	7,204	67,042	44,597	67,923	1,79,562	1,86,766	96	105
1955	3,848	4,722	3,033	11,603	77,357	62,020	93,828	2,33,205	2,44,808	107	137
1960	4,442	6,570	2,929	13,941	1,23,488	1,21,085	1,59,837	4,04,410	4,18,351	259	107
1966	5,642	5,205	4,009	14,856	84,525	59,977	77,291	2,21,793	2,36,649	258	237
1971	42,206	53,528	11,685	1,07,419	3,35,967	3,72,010	4,09,316	11,17,293	12,24,712	1,345	1,328
1974	38,164	50,857	15,825	1,04,846	3,87,015	4,32,507	4,92,360	13,11,882	14,16,728	1,358	1,396

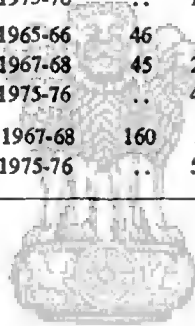
TABLE NO. 7—WORK DONE BY PRIMARY HEALTH CENTRES
IN THANE DISTRICT

Name of Block	Name of Primary Health Centre	Year	Number of villages benefited	Persons Treated			
				Males	Females	Children	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mokhada ..	Sakharshet	1965-66	69	1,832	1,644	2,971	6,447
		1967-68	44	1,842	1,800	3,520	7,162
		1975-76	..	1,151	1,437	1,488	4,076
Murbad ..	Dhasai ..	1965-66	168	2,738	1,522	1,445	5,705
		1967-68	32	1,736	2,950	5,450	10,136
		1975-76	..	4,175	2,712	4,708	11,595
Dahanu ..	Vangaon	1965-66	59	2,148	3,570	2,740	8,458
		1967-68	72	2,971	2,350	2,970	8,291
		1975-76	..	4,516	4,754	7,109	16,379
	Kasa ..	1965-66	70	1,127	744	791	2,662
		1967-68	71	763	900	1,300	2,963
		1975-76	..	5,749	4,087	6,058	15,894
Palghar ..	Palghar ..	1965-66	58	8,743	6,943	13,224	28,910
		1967-68	70	13,705	12,000	6,830	32,575
		1975-76	..	5,877	5,948	4,120	15,945
	Saphala ..	1965-66	68	6,367	5,941	8,224	20,530
		1967-68	47	7,447	11,000	870	19,317
		1975-76	..	4,813	4,369	5,286	14,468
	Maswan ..	1965-66	45	5,495	10,121	14,526	30,142
		1967-68	45	2,800	1,800	3,800	8,400
		1975-76	..	1,622	2,345	3,621	7,588
Kalyan ..	Goveli ..	1965-66	36	938	1,123	1,033	3,094
		1967-68	60	1,414	1,650	1,700	4,764
		1975-76	..	3,223	1,102	3,412	7,737
Shahapur ..	Kasara ..	1965-66	106	1,215	1,392	3,593	6,200
		1967-68	121	7,707	1,620	2,100	10,797
		1975-76	..	3,145	3,488	6,185	12,838
Thane ..	Belapur ..	1965-66	26	1,543	1,920	792	4,255
		1967-68	176	1,772	2,800	1,500	60,72
		1975-76	..	3,292	4,715	4,853	12,860
	Bhayandar	1975-76	..	5,836	6,019	7,418	19,273
Talasari ..	Talasari ..	1965-66	17	1,957	1,782	1,877	5,616
		1967-68	38	1,724	2,330	13,90	5,444
		1975-76	..	4,335	3,319	5,023	12,677

TABLE No. 7—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bhivandi	.. Padgha ..	1965-66	90	2,322	3,228	5,257	10,807
		1967-68	68	2,411	2,310	2,700	7,421
		1975-76	..	3,748	4,605	4,855	13,208
	Kharbao	1965-66	20	1,262	1,323	1,144	3,719
		1967-68	67	1,962	2,000	1,900	5,862
		1975-76	..	2,997	2,926	3,213	9,136
Wada	.. Gorhe ..	1965-66	165	4,847	5,114	2,943	12,904
		1967-68	169	6,700	5,000	3,100	14,800
		1975-76	..	2,163	1,905	2,376	6,444
Vasai	.. Virar ..	1965-66	28	437	571	653	1,661
		1967-68	35	450	90,50	8,700	18,200
		1975-76	..	1,625	18,736	2,725	23,086
	Navghar	1965-66	46	331	432	443	1,206
		1967-68	45	2,800	1,800	3,800	8,400
		1975-76	..	4,786	6,235	4,902	15,923
Jawhar	.. Vikramgad	1967-68	160	1,300	12,00	2,900	5,400
		1975-76	..	5,234	2,826	1,725	9,785

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CHAPTER 17 — OTHER SOCIAL SERVICES

LABOUR DEPARTMENT

THE INDUSTRIES AND LABOUR DEPARTMENT OF THE GOVERNMENT OF MAHARASHTRA controls the offices dealing with labour matters. The Commissioner of Labour is the head of all such offices. He performs the statutory functions entrusted to him under the following Acts :— The Central Acts which he has to enforce are the Industrial Disputes Act, 1947 ; the Trade Unions Act, 1926 ; the Industrial Employment (Standing Orders) Act, 1946 ; the Minimum Wages Act, 1948 ; the Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, 1955 ; the Motor Transport Workers Act, 1961 ; the Payment of Bonus Act, 1965 ; and the Beedi and Cigar Workers (Conditions of Employment) Act, 1966 ; whereas the State Acts are the Bombay Industrial Relations Act, 1946 ; and the Bombay Shops and Establishments Act, 1948.

During the last thirty years or so there was marked industrial development in Thane district, especially in and around Thane town. Industrialisation created labour problems. With a view to ameliorating and ventilating the grievances of labour, the office of the Government Labour Officer, Thane, was created in September, 1960. Prior to this all work relating to labour disputes and inspection in the districts of Thane and Kulaba was being handled from Bombay. With a number of industries coming up both at Thane and its outskirts and around Kalyan and Ambarnath another Government Labour Officer was appointed at Kalyan in October, 1964. With the establishment of the office of the Government Labour Officer, Kalyan, the work has been divided between the two offices. The Government Labour Officer, Thane, has under his jurisdiction Thane, Vasai, Dahanu and Palghar talukas of Thane district and Alibag, Panvel, Uran, Poladpur, Mhasala, Mangaon, Roha, Sudhagad, Murud, Shrivardhan and Khalapur talukas of Kulaba district. The Government Labour Officer, Kalyan, has under his jurisdiction Jawhar, Vada, Bhiwandi, Shahapur, Murbad, Mokhada, Talasari and Kalyan talukas of Thane district and Karjat, Pen and Mahad talukas of Kulaba district. The Government Labour Officers are responsible for implementation of labour laws including

the Minimum Wages Act, the Motor Transport Workers Act, the Working Journalists Act, and the Payment of Bonus Act. They are also to mediate in disputes by using their good offices and promote settlement of disputes.

Conciliation machinery under the Industrial Disputes Act, 1947 : The Government Labour Officer, Thane, is also notified as the Conciliation Officer for the purposes of mediating in and promoting settlement thereof in relation to industrial disputes under the Industrial Disputes Act, 1947. One of the Assistant Commissioners of Labour, Bombay, attends to conciliation work, thrice in a week at Thane, for the convenience of the employers and employees in that area.

Labour Unions under Bombay Industrial Relations Act : The Bombay Industrial Relations Act, 1946, aims at regulating the relations between the employers and employees in the industries to which the Act is applicable and provides a machinery for resolving the industrial disputes that may arise between them. One of the Assistant Commissioners of Labour at Bombay is appointed as the Registrar. The Registrar's work is of a *quasi-judicial* nature and includes recognition of undertakings and occupations, registration of unions, maintenance of approved list of unions, registration of agreements, settlements, submissions and awards, recording of standing orders settled by the Commissioner of Labour, and maintenance of list of joint committees constituted under the Act :

During 1968-69, there were eight representative unions registered under the Bombay Industrial Relations Act. These were : (1) the Vallabh Mill Mazdoor Union, Thane for Thane taluka excluding Thane Municipal Borough ; (2) the Mill Mazdoor Union (Lal Bavta), Thane, for the Thane Municipal Borough ; (3) the National Textile Workers' Union, Ambarnath, for Thane Municipal Borough ; (4) the National Textile Workers Union Ambarnath, for Kalyan taluka ; (5) the Woollen Mill Kamgar Union, Thane, for Thane Municipal Borough ; (6) the Textile Kamgar Sabha, Thane, for Thane Municipal Borough ; (7) BEST Workers' Union, Bombay for Thane Municipal Borough and (8) The Thane Zilla Sahakari Bank Karmachari Sangh, Thane, for Thane Municipal Borough, Bhiwandi Municipal Borough and Kalyan taluka. During the period 1966-67 to 1968-69, nineteen agreements, ten settlements, one submission and 35 awards pertaining to different undertakings in various industries in the district were registered.

In Thane district there are eight undertakings in the cotton textile industry, nine in the woollen textile industry, 29 in the silk textile industry, six in the textile processing industry, twenty in the banking industry and three in supply of electrical energy.

Machinery under Bombay Industrial Relations Act : The Commissioner of Labour is the chief administrative authority under the Act. One of the Deputy Commissioners of Labour at Bombay has been delegated the powers of the Commissioner of Labour regarding settling the standing orders.

One of the Assistant Commissioners of Labour at Bombay has been notified as Conciliator and has been given jurisdiction over Greater Bombay and Thane districts. The main work of the Conciliator under the Act is to conciliate the industrial disputes between the employers and employees in the undertakings to which the Act applies. During 1966-67 to 1968-69 the Conciliator settled fifteen disputes from different undertakings in the district.

The main duties of the Labour Officers under the Act include protecting the interests of the employees and promote harmonious relations between employers, investigating the grievances of the employees and represent to employers such grievances and make recommendations to them in consultation with the employees concerned for their redressal.

One of the Deputy Commissioners of Labour at Bombay has been notified as the Registrar of Trade Unions for the State of Maharashtra under the Indian Trade Unions Act. The duties of the Registrar include the registration of trade unions and amendments to the constitution of the unions. In 1967 there were 77 unions with a membership of 37,331 in the district registered under the Indian Trade Unions Act, 1926.

Minimum Wages Act, 1948 : The Government of Maharashtra has fixed the minimum rates of wages under the Minimum Wages Act, 1948, for scheduled employments in the district in rice, flour or *dal* mills, tobacco (including *bidi*-making), oil mills, building operations, stone-breaking and stone-crushing, public motor transport, tanneries and leather manufactory, rubber manufactory, glass manufactory, shops or commercial establishments, paper and paper board manufactory, cinema exhibition industry, hotel, restaurant or eating house, potteries, cotton ginning, and agriculture (for Dahanu and Mokhada talukas).

Bombay Shops and Establishments Act, 1948 : The Bombay Shops and Establishments Act is made applicable to the area under the jurisdiction of Thane Municipal Borough, while the provisions of the Payment of Wages Act and Workmen's Compensation Act are also made applicable to the district.

Employees' State Insurance Act, 1948 : The Employees' State Insurance Act, 1948, has been made applicable to the district, and for payment of cash benefits to the insured persons, three offices, two at Thane and one at Kalyan, have been established. The number of

employers and insured persons attached to these local offices is given below :—

Local Office	No. of employers	No. of Insured persons
Thane	... 392	54,752
Kalyan	... 92	33,182

Industrial Arbitration and Adjudication : The Court of Industrial Arbitration, commonly referred to as Industrial Court, Bombay, has jurisdiction to decide the disputes arising in the cotton, silk and woollen textile processing, sugar, and electricity industries. Under the Act the Industrial Court acts as a Court of Arbitration in the disputes referred to it by Government, representative unions, employers or jointly by the parties to the dispute. In its appellate jurisdiction, it decides appeals preferred to it from the decisions of the Labour Courts, Wage Boards, the Registrar, and the Commissioner of Labour. It also hears appeals in criminal cases from the decisions of the Labour Court. The Government may make a reference to it for a declaration whether a proposed strike, lock-out, closure or stoppage would be illegal.

Industrial disputes, arising in industries not covered by the Bombay Industrial Relations Act, 1946, are referred to the Industrial Tribunal. The Labour Courts decide the disputes regarding orders passed under the standing orders governing relations between employers and employees. The Labour Courts have also powers to decide the legality or otherwise of a strike, lock-out, closure, stoppage or change. They have also to decide disputes about computation of benefits granted under awards or settlements.

Factory Department : The enforcement of the Factories Act is carried out by the Factory Department. Besides the Factories Act, the Department administers various other labour laws, viz., the Payment of Wages Act, the Maternity Benefits Act, the Employment of Children Act and the Cotton Ginning and Pressing Factories Act.

The Chief Inspector of Factories is the head of the office and is subordinate to the Commissioner of Labour. There is a factory inspection office at Thane with three Inspectors of Factories. The activities of this office also extend to securing welfare amenities for workers such as education, recreation, sports and co-operative societies. The main function of the Inspector is to ensure that the provisions of the Factories Act are observed by the factories.

Steam Boilers and Smoke Nuisance Department : The work pertaining to the registration and inspection of boilers, economisers, steam pipes and other kindred matters with which this department is concerned in Thane district, is carried out by the Inspector of Steam Boilers and Smoke Nuisance with headquarters at Bombay.

Workmen's Compensation Act: The Commissioner for Workmen's Compensation, Bombay, hears all cases under the Workmen's Compensation Act in Thane district. The Civil Judge, Senior Division, Thane, is *ex-officio* Commissioner for Thane district.

Labour Welfare Activities: The Maharashtra Labour Welfare Board is a statutory body constituted under the Bombay Labour Welfare Fund Act, 1953, and it conducts labour welfare activities at Thane, Ambarnath and Bhivandi. There is a labour welfare centre at each of these places. The welfare activities include reading room, a *shishu mandir*, indoor and outdoor games, sewing and embroidery classes for women, entertainment and cultural programmes and audio-visual programmes. These welfare centres are under the charge of the Workers' Development Officer, West Zone, Bombay.

PROHIBITION AND EXCISE DEPARTMENT

The prohibition policy of the Government aims at the moral, ethical and economic uplift of the common man and the achievement of peaceful living conditions in society. With this in view the prohibition laws were enforced from time to time to achieve the goal. The legislation thus prohibited the production, possession, export, import, transport, sale and consumption, etc. of all intoxicants except as permitted by rules. This prohibition was introduced in the former Bombay State since 1950. However this policy was changed from time to time, and the restrictions put on the use and consumption of intoxicant liquor were liberally relaxed in 1973.

The Prohibition and Excise Department however administers the Bombay Prohibition Act, 1949; the Medicinal and Toilet Preparations (Excise Duties) Act, 1955; the Spirituous Preparations (Inter-State Trade and Commerce) Control Act, 1955; the Dangerous Drugs Act, 1930; the Bombay Drugs Control Act, 1959; and the Bombay Opium Smoking Act, 1936.

Organisation: The Commissioner of Prohibition and Excise is the head of organisation. His office forms a central organisation for directing proper implementation of the prohibition policy of the Government and for giving directions to the Collectors of districts and subordinate officers of the Prohibition and Excise Department. At the district level the department is headed by the Superintendent of Prohibition and Excise. He works under the general control and supervision of Collector. The Superintendent is assisted in his work by Inspectors of Prohibition and Excise who look after the sub-divisions into which the district is divided. The Inspectors and Sub-Inspectors are assisted by Excise Constables.

Functions : The main functions of the Department are confined to licensing, inspection and enforcement of various controls enacted under Prohibition laws. The officers of the department have to undertake the prohibition propaganda, supervise recreation centres etc. So far as Police organisation is concerned the primary responsibility of the Police in offence cases remains unchanged. However, the officers of the department are empowered to prosecute independently the offences in respect of cases detected by them. The staff of the department is also entrusted with the supervision over bonded manufactories, warehouses, foreign liquor shops, toddy shops and *neera* centres. The supervisory staff is also posted at the distilleries for supervision over molasses and manufacture of spirits and Indian and foreign liquors. A Sub-Inspector of Excise is posted at each bonded manufactory in which duty-free rectified spirit is used for manufacture of medicinal and toilet preparations. Foreign liquor trade and import licences also come under the supervision of a Sub-Inspector at the cost of licencees.

For the successful implementation of prohibition, education, propaganda and recreation activities are carried out with the help of district prohibition committee, taluka prohibition committees and committees of village panchayats. The propaganda of prohibition is carried through entertainment programme such as dramas, *bhajans*, *kirtans*, etc. Recreation-cum-ameliorative facilities are provided at the departmental *sanskar-kendras*. An essential part of the rationalisation of prohibition policy is education of people about the evil effects of drinking by propaganda and ameliorative activities to wean the poor people and especially younger generation away from it. The Government has also sanctioned grants for intensifying educational and propaganda activities against drink evils.

Foreign liquor : Under the Bombay Foreign Liquor Rules, 1953, framed under the Bombay Prohibition Act, 1949, various licences are granted, viz., trade and import licence, vendors licence and club licence. As per the new policy the health permits coming under the Bombay Foreign Liquor Rules, 1953, which were in existence before 1972 are now valid for an indefinite period. The holder can get, on the strength of a health permit, any quantity of liquor.

Toddy : The toddy scheme was introduced in the State in 1968. Under the scheme the free sale of toddy containing not more than 5 per cent alcohol by volume is permitted. Toddy upto three litres at a time is allowed to be transported and possessed without a licence.

Industrial alcohol : A licence under the Maharashtra Distillation of Spirit and Manufacture of Potable Liquor Rules, 1966, for the manufacture and sale of industrial alcohol was granted to Messrs. Solera Distilleries Ltd., Belapur, in Thane district.

Ordinary denatured spirit: This spirit is mainly used in the manufacture of french polish, varnish and thinners. There were nine wholesale and sixteen retail licencees in Thane district in 1973-74 for sale of this kind of spirit.

Country liquor: As per the Government notification dated 4th October 1973, country liquor was permitted to be manufactured under licence granted to distilleries holding licence for distillation of spirit and persons holding licence for possession and use of rectified spirit. The permits for possession, use, consumption and transport of country liquor are issued on payment by the Collector. These permits are valid for an indefinite period. There were 290 different types of licencees in Thane district during 1973-74.

Potable liquor, beer and wine: Under the Maharashtra Distillation of Spirit and Manufacture of Potable Liquor Rules, 1966, and the Maharashtra Manufacture of Beer and Wine Rules, 1966, many parties were granted licence to manufacture beer, wine and potable liquor among which one was Messrs. Solera Distilleries Ltd., Thane. It was issued a licence in December 1971.

SOCIAL WELFARE DEPARTMENT

Organisation: Under the Director of Social Welfare there are Divisional Social Welfare Officers for each division and a Social Welfare Officer for each district. The District Social Welfare Officer executes the schemes undertaken by the department and co-ordinates the backward class welfare schemes implemented by the various departments. Since May 1962 the Social Welfare Officer is under the administrative control of the Zilla Parishad and is directly responsible to the Chief Executive Officer for implementation of activities in the district. For implementation of State level schemes he receives directives from the Divisional Social Welfare Officer, Bombay and the Director of Social Welfare, Pune.

A number of privileges have been granted to the backward classes for ameliorating their conditions. Besides normal concessions made available to backward classes from time to time, special schemes have been framed for backward classes under the State Five-Year Plans. Of the various schemes implemented by the Directorate, some are executed by the concerned heads of departments and some have been transferred to the Zilla Parishad. The department pays purposive grant at the rate of 90 per cent on committed schemes.

For advising the State Government on matters relating to the welfare of the scheduled tribes and scheduled castes two bodies, viz., Advisory Board and Advisory Council have been constituted.

Measures for Uplift : The disabilities experienced by the backward class people could be grouped in three categories—educational, economical and social. The Government has concentrated its efforts in order to eliminate these disabilities within the shortest possible time.

Educational : The educational problem is countered by providing large number of scholarships, concessions, tuition fees and exemption from examination fees. These concessions are made available at all the stages of education—primary, secondary and collegiate. Special schools are also opened with a view to spreading education amongst the backward classes.

During 1962-63 a sum of Rs. 86,871 was spent on 1,848 beneficiaries. In addition, Rs. 50,000 were spent for the technical training of *Adivasi* youths at the centre opened at village Kosbad in Dahanu taluka. In 1966-67 the number of beneficiaries receiving education at all the stages stood at 76,720. The educational concessions awarded to these students amounted to Rs. 13,45,696 and Rs. 14,18,097 in 1965-66 and 1966-67, respectively. The Zilla Parishad spent a sum of Rs. 3,94,600 on all schemes, of which a sum of Rs. 75,968 accounted for tuition fees and scholarships to 5,912 students in 1967-68. The number of students belonging to the economically backward class stood at 15,830 in 1964-65 as against 17,430 in 1966-67. The benefit received by them during the corresponding years stood at Rs. 1,125 and Rs. 1,309. During 1970-71 there were 10,728 scheduled caste and 31,382 scheduled tribe students in primary schools. Their strength in secondary schools was 1,767 and 1,023, respectively.

To accommodate the backward class students at the various centres of education special hostels have been provided. Besides, the voluntary agencies are encouraged to run hostels for such students or to accommodate them in general hostels by paying building grants. In 1962-63 an amount of Rs. 1,25,669 was spent on nineteen backward class hostels and three cosmopolitan hostels in the district. More than 712 students were admitted to these hostels and a sum of Rs. 12,861 was given as a building grant to two scheduled caste hostels. The number of aided hostels run by the various voluntary agencies stood at 29, of which seven were for girls and the rest 22 for boys. Most of these hostels are located in the hilly areas of the district, viz., Kosbad, Kasa, Mokhada, Talasari and Wada. Two government hostels for girls are functioning at Jawhar and Bhivandi.

Besides hostels, there are *ashram* schools imparting education to the children belonging to scheduled tribes. In such *ashrams* free lodging and boarding is provided. In addition to literary education, instruction in agriculture and other crafts such as weaving, carpentry, etc. is given. In 1967-68 there were as many as seven *ashram* schools in the district.

Education is also imparted through *balwadis* and *sanskar kendras* run by voluntary agencies on grant-in-aid basis. The aim of *balwadis* is to inculcate the habit of cleanliness among children of tender age and prepare them for primary education. In 1967-68 there were eight such *balwadis* in the district functioning at Thane, Khardi, Wada, Kalyan, Jawhar, Padgha, Ulhasnagar and Ambarnath. Four *sanskar kendras* were situated at Jawhar, Masoli, Manikpur and Edwan. One community-cum-recreation centre has been set up at Ambarnath for tribals.

Economic : Economic disability is removed through economic rehabilitation by (a) granting cultivable waste lands, supplying ploughs, bullocks, implements, seeds, etc. ; (b) establishing training centres for imparting training in hereditary crafts and providing financial help for their rehabilitation in various cottage industries ; (c) infusing the concept of co-operation in their life by providing all relevant facilities ; (d) introducing special measures for housing ; and (e) reserving certain percentage of vacancies in Government services, local bodies and semi-Government bodies.

As regards the scheme of granting loan-cum-subsidy for cottage industries an amount of Rs. 23,950 was spent on 127 beneficiaries in 1962-63. Assistance for purchase of milch cattle to the extent of Rs. 4,166 was granted to twenty-two persons from scheduled castes.

A number of housing societies have been formed for the backward classes in the district. Financial assistance in the form of loans and subsidies is given to these societies. Under this scheme Rs. 2,62,344 were spent on 56 beneficiaries and nine colonies during 1962-63. In 1968, ten societies belonging to backward classes constructed 226 houses whereas 76 houses were under construction in the same year. The number of colonies of scheduled castes and scheduled tribes in 1968 stood at 23 and 5, respectively. A total of 430 tenements were constructed at a cost of Rs. 3,28,750.

Under the scheme of drinking water wells, a sum of Rs. 23,625 was spent in 1962-63, while Rs. 15,000 were spent on repairing wells. In the same year a sum of Rs. 22,125 was spent towards construction of new wells for scheduled tribes in under-developed areas.

Financial assistance to the deserving poor agriculturists from scheduled tribes and *vimukta jatis* for purchase of ploughs, bullocks, implements, etc. was extended to the tune of Rs. 19,075 during 1962-63.

Similarly 4,971 acres of land was distributed to 2,657 families belonging to the backward classes. Two premium bull centres located at Dolara and Dolkhamb are also run for the conservation and improvement of cattle wealth of *Adivasis*. In many areas of the district the backward class farmers have formed farming co-operative societies, the number of which stood at twenty with membership of 776. In addition,

co-operative societies have also been organised in other fields. There were five timber societies, 10 *charmakar* societies, 29 housing societies and 153 credit societies.

With a view to train the *Adivasi* agriculturists in adoption of improved methods in agriculture, one centre has been established at Talasari. The centre selects one village every year for this purpose. The farmers are given 50 per cent of the original cost of bulls, fertilizers, etc. as grant-in-aid, and prizes are awarded for crop competitions. The institute for technical training for *Adivasi* youths run by the Gokhale Education Society at Kosbad has done pioneering work in the field. *Adivasis* below the age of 40 are imparted training in methods of agriculture, health and hygiene, live-stock breeding, cottage industries and poultry farming in this institute. This is the only institute of its kind in the State.

Veterinary dispensaries have also been set up at Mokhada, Shahapur, Jawhar, Talasari and Dahanu for the benefit of *Adivasi* people. During 1967-68, 11,759 and 67,639 cases were treated and vaccinated, respectively at these dispensaries involving a total expenditure of Rs. 81,012.

Under the scheme of medical aid to the backward classes, four mobile dispensaries at Shahapur, Kusa, Varkarpada and Talasari, one combined medical health unit at Maswan and one class IV dispensary at Dapchari have been provided. An evil system known as *Palemot* was prevalent in the *Adivasi* areas of Thane district under which money-lenders used to squeeze the *Adivasis*. The Government is taking steps towards the eradication of this system. Under the scheme of eradication of the *Palemot* system the *Adivasis* are given assistance in cash or kind during the rainy season when it is difficult for them to make both ends meet. With a view to preventing them from having recourse to money-lenders the Government now grants financial assistance to them in the form of a loan to the extent of Rs. 250 each. Of this, the share of assistance in kind is fixed at 75 per cent. Till 1968, an amount of Rs. 13,70,000 was given to 28,096 families under the scheme.

The Dahanu, Jawhar, Shahapur and Mokhada talukas have been declared as comprising the scheduled area. To improve the economic conditions of the people in this area, eight tribal development blocks covering nearly half of the scheduled tribe population have been established.

Social: The social disabilities of the scheduled castes and scheduled tribes are sought to be removed by legislative measures including (1) the Bombay Harijan (Removal of Social Disabilities) Act, 1946, and (2) the Bombay Harijan Temple Entry Act, 1947. The most

noteworthy feature of both these Acts is that offences under these Acts are treated as cognisable. In large number of cases particularly in the matter of access to places of public entertainment and establishment, and of discrimination practised in such places, establishments and temples, it was found that persuasion by Government officers and non-official agencies was sufficient to end the social disabilities imposed on the Harijans. Another important legislation passed by the Government is the Untouchability Offence Act, 1955.

The various schemes for removal of untouchability include organisation of *sanskar kendras* and *balwadis*, addressing of gatherings at fairs, *kirtan* programmes, inter-caste dinners and celebration of weeks and days of national importance. Similarly building sites are given to the backward classes in predominantly mixed localities and subsidy is paid to those caste Hindu landlords who let their premises on hire to backward class persons. An amount of Rs. 32,050 was spent on various such schemes during 1962-63. The following voluntary agencies are doing appreciable work in the field of backward class welfare in the district :—

Name of agency	Jurisdiction
(1) Harijan-Girijan Samaj Mandal, Bhivandi.	Thane district.
(2) Gadge Maharaj Mission, Bombay ...	Maharashtra State.
(3) Gokhale Education Society, Bombay.	Bombay and Thane districts.
(4) Maharashtra Harijan Sevak Sangh, Dhule (Ambarnath Branch).	Bombay and Thane districts.
(5) Gram Bal Shikshan Kendra, Kosbad.	Kosbad.
(6) Adivasi Seva Mandal, Bombay ...	Bombay and Thane districts.

Fifth Five-Year Plan Schemes : For the welfare of the backward classes a special provision is made in the Fifth Five-Year Plan. These schemes relate to the economic and educational uplift of the backward classes. The total outlay provided in the Plan for the welfare of backward classes is Rs. 140.00 lakhs. The important schemes are detailed below :—

(1) *Educational schemes :* The scheme of provision of free-studentship and financial aid to students from backward classes is included in the District Plan. A provision of Rs. 2.15 lakhs is made for the same in the District Plan of Thane. The expenditure per student will be Rs. 100 per year and the total number of beneficiaries

under the scheme will be about 2,150. So far as hostels are concerned, at present there are two government hostels for girls situated at Bhiwandi and Jawhar. Since there is no hostel for boys, the scheme of opening such a hostel at the cost of Rs. 4.00 lakhs has been included in the Plan. A scheme to open ten more hostels with the outlay of Rs. 10.00 lakhs is also included in the Plan so that by the end of the Plan period the total strength of hostels run on grant-in-aid basis will be 48. The present strength of the existing 38 hostels is 1,682 which will be increased to 2,032 by the end of the Plan. An outlay of Rs. 2.00 lakhs has been provided for giving building grants to voluntary agencies.

(2) *Economic welfare* : The agriculturists belonging to the backward classes will be given loan-cum-subsidy for the construction of new irrigation wells. The scheme will cost Rs. 2.60 lakhs and the target provided is 35 wells. Such agriculturists are also given subsidy for development of land, purchase of cattle, implements etc. A provision of Rs. 3.34 lakhs has been made for this purpose. Under the scheme of loan-cum-subsidy for cottage industries, a provision of Rs. 1.67 lakhs has been made in the Plan. Towards the scheme of co-operative housing societies, the backward classes are granted loan-cum-subsidy. A provision of Rs. 5.00 lakhs is made during the Fifth Plan.

(3) *Social welfare* : The intensive publicity and mass education programme for the removal of untouchability is proposed to be undertaken during the Fifth Plan. A provision of Rs. 1.00 lakh has been made in the Plan. It is also proposed to improve the conditions of Harijan colonies by improving sanitary facilities, providing water-supply and electrification. A target of fifteen such colonies has been fixed with a total outlay of Rs. 0.76 lakh.

CHARITY COMMISSIONER

The religious and charitable trusts in the former Bombay State were governed under various Central as well as State enactments which were basically religious in principle. In the year 1950, the Bombay Public Trusts Act was passed which was applied to all types of trusts irrespective of their character, religious or otherwise.

The Charity Commissioner, Bombay, is entrusted with the administration of the Societies Registration Act and is assisted in his work by Deputy Charity Commissioners and Assistant Charity Commissioners placed in charge of divisions. The Thane district comes under the jurisdiction of Nasik region.

Table No. 1 gives the statistics of public trusts in Thane district.

A registration fee ranging from Rs. 3 to Rs. 25 is levied depending upon the value of the property. An annual contribution at the rate of 2 per cent of the gross annual income is also recovered and credited to a fund created under the Act. The public trusts working exclusively for the advancement or propagation of secular education or medical relief and public trusts having a gross annual income of Rs. 1,000 or less are exempted from this contribution. The contribution is levied on the net profit in the case of public trusts conducting a business or trade.

Every trustee has to keep regular accounts of the trust which are audited every year by a Chartered Accountant or a person authorised under the Act. The auditor has to submit his report to the Deputy or Assistant Charity Commissioner of his region. No sale, mortgage, exchange or gift of any immovable property and no lease for a period exceeding ten years in case of agricultural land and three years in case of non-agricultural land or building of a trust is valid without the previous sanction of the Charity Commissioner.

Charity Commissioner and Charitable Endowments: The Charity Commissioner is deemed to be and to have always been the treasurer of charitable endowments for the State appointed under the provisions of the Charitable Endowments Act, 1890. In the case of religious charitable institutions and endowments which vest in or the management of which vests in the State Government, they are to be transferred and vested in the managing committee to be appointed by the Government for each district. The members of the Committee under the Act are to be treated as trustees of the endowments.

ADMINISTRATION OF MANAGED ESTATES

The Government takes over on many occasions the management of estates of minors, lunatics and persons who are not competent to look-after their property.

Under the Bombay Court of Wards Act, the Collector acts as the Court of Wards within his jurisdiction. The State Government is empowered to appoint in lieu of the Collector, either a special officer or a board consisting of two or more officers to be Court of Wards. The Court of Wards can assume the superintendence of the property of minors, females declared by District Court to be incapable of managing their own property and persons adjudged by the Court to be of unsound mind. The Court of Wards however cannot take over the management of property of any minor whose property is looked-after by a caretaker appointed by will or other instrument or under section 7 of the Guardians and Wards Act.

From 1953 the administration of the estates of minors under the Guardians and Wards Act, 1890, was transferred from Judicial Department to Revenue Department. There were in all 38 such estates transferred to the Revenue Department. In 1957-58 the number of estates rose to 41. Out of these, the possession of 29 estates was handed over to the persons concerned till 1970.

TABLE NO. 1—PUBLIC TRUSTS IN THANE DISTRICT AS ON
DECEMBER 1968

Section	Total number of public trusts registered	Value of property		Gross average annual income	Gross average annual expen- diture
		Movable	Immo- vable		
(1)	(2)	(3)	(4)	(5)	(6)
		Rs.	Rs.	Rs.	Rs.
(a) Trusts for the benefit of Hindus.	578	13,27,713	31,40,963	3,12,086	2,78,982
(b) Trusts for the benefit of Muslims.	212	3,19,400	15,33,777	1,46,104	1,34,378
(c) Trusts for the benefit of Parsees.	14	1,96,485	4,66,028	52,510	24,353
(d) Trusts for the benefit of Christians.	37	1,52,720	18,76,553	2,16,938	3,60,896
(e) Trusts for the benefit of not any particular community.	338	10,24,401	12,94,150	4,93,378	5,64,282
(f) Trusts registered under the Societies Registration Act, 1860.	142	7,19,339	28,82,476	9,28,454	9,93,650

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CHAPTER 18 — PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

INTRODUCTION

THE VOLUNTARY SOCIAL SERVICE ORGANISATIONS EVEN THOUGH voluntary in character and social in purpose play, at present, a vital role in public life in general and socio-economic complex of society in particular. These organisations are the outcome of certain tendencies which are permanent in human life. One is the social nature of man, his tendency to live in groups and another is the tendency to form groups based on common interest, such as kinship, locality, age, rank, wealth, etc. Such groups perform various functions and control certain aspects of social life. There is also the tendency towards integration and subjection of individuals and groups to a common unity and authority for the regulation of the common interest of the larger groups.

Now the State has taken upon itself the role of satisfying the human needs and fulfilling the aspirations which the individual could not do on his own. With the advance of time, and progress achieved by the individuals in civilisation, human life has become more complex. With the changes in the socio-political concepts, the relationship between the State and individual has also undergone a vital change. The State has started taking an interest in the multifarious developmental activities. The power of the State increased immensely in terms of economic resources, man-power and also in terms of techniques and so also its responsibilities. Even with the expansion of Government activities in various spheres of life the State cannot fulfil all the human requirements. This leaves a considerable scope for voluntary organisations.

The needs of human beings increased in number and also in the types, and the life became complex. The State could succeed in supplying the material wants of the individuals but not in satisfying the social motives like friendship or co-operation which establish an intimate relationship. The State could not touch those inner compartments of life which seek satisfaction and cannot be measured in material terms. The individuals found out some avenues to satisfy their social motives and their inner urges. These avenues were nothing else but voluntary social service organisations. These organisations differ according to circumstances and needs of people prevailing in

a district. In the past, their field was limited, but in the 20th century they are multifarious in type and number. The individuals themselves with a view to attain the best in life come together and organise educational, literary and religious organisations. The area of these social organisations is voluntary co-operation based on goodwill. The aims and objectives of the State and of these organisations are not conflicting but in fact these organisations supplement the efforts made by the State towards the development of human personality. These organisations fill up the gap left out by Government bodies.

PUBLIC LIFE

The stage of transition of the Indian mind from complete submission to foreign rule and then to the State of consciousness of its own entity and its rich heritage was slow but gradual. Due to its proximity to Bombay, Thane district could not remain a silent spectator to the renaissance and awakening taking place in the social, cultural and political fields in the metropolitan city of Bombay. The beginning of this awakening can be traced to the resistance of staunch Hindus against the activities of Christian missionaries. The social awakening was strengthened with the establishment of the Arya Samaj in 1875. The district also participated in the hard efforts for the establishment of the Indian National Congress in 1885 which had deep repercussions in the district in general. The annual sessions of the Congress gave an opportunity for the expression of opinion by the educated Indians. The leading papers of Thane, viz., *Arunodaya* and *Suryodaya* propagated national views. Shri Balasaheb alias Narayan Vasudeo Khare was the first native president of Thane municipality. Along with political consciousness, cultural awakening was also taking place in the minds of the district populace. The establishment of the famous Mumbai Marathi Grantha Sangrahalaya in 1894 contributed immensely to the cultural and literary developments in the district. Many litterateurs like Bhaskar Damodar Palande, Janardan Balaji Modak, Shankar Balaji Dixit and Vinayak Laxman Bhawe made a contribution to these developments. Shri Bhaskar Damodar Palande, a pioneer in the field of literature, was a poet and a scholar. He wrote essays on various topics. He is specially well-known for his book on Indian astrology published in 1896. Vinayak Laxman Bhawe alias *Maharashtra Saraswat* was another great litterateur of the district whose celebrated work, *Maharashtra Saraswat*, depicted the history of Marathi language. This book is regarded as an authoritative work on the subject.

Dabake and Phadke were pioneers in the field of journalism in the district. Dabake was the editor of the first magazine in Marathi, viz., *Hindupunch*. The progressive views of these writers and journalists

made an impact upon the events in last decade of the last century and the early years of the 20th century.

The no-tax campaign organised for the redress of the problems of the famine-stricken by one of the architects of India's freedom led to Thane riots in 1897-98.

The closing years of the last century were the years of great stress and strain. The year 1904 was marked with the spread of political awakening in every corner of the district. It was the result of the Congress Session which took place in Bombay. Many persons from district participated in the movement against the partition of Bengal and other measures undertaken by Lord Curzon. The Swadeshi movement was the outcome of this anti-partition agitation. Some revolutionary activities also took place in the district as reaction to Lokmanya Tilak's arrest for his articles on "Maniktola". Shidra-mappa of Ulve was sentenced to six months' rigorous imprisonment for participation in revolutionary activities.

This political upsurge also found its expression in dramas. Many dramas propagating the principles of nationalism and thereby spreading disrespect for foreign rule were written in the district. One such was a musical play, *Bandhavimochan* by name, written by Gopal Govind Soman, a clerk in the office of the Executive Engineer, Thane. The stage performance of this drama alongwith others was banned by Government.

The Maharashtra Prantik Parishad was organised for propagation of the non-co-operation and non-violence movement. The first meeting of this Parishad was held in January 1921 at Vasai. The citizens gave spontaneous response to the *satyagraha* and non-co-operation movement. One of the prominent citizens of Thane—Govindrao Pradhan, was the Finance Minister of the then Bombay Presidency. He dominated the political life, not only of Thane city but also of the surrounding areas of the city. As a member of Thane Municipality he initiated various measures for the development of Thane city. D. V. Gokhale, Jamnadas Mehta and Abhyankar played vital role in the Salt Satyagraha in 1930 by selling salt at Arnala in violation of the Salt Act. The Salt Law was again violated at various places in Palghar taluka, Vasai and Bhiwandi. The Quit India Movement launched on 8th August 1942 at Bombay by Mahatma Gandhi had a very deep impact on the Thane populace who expressed their support to the movement by organising meetings and violation of British laws. As a result of the agitation, the district was cut off from Bombay due to burning of Government buildings, blowing up of bridges and power houses.

As in the political field, there was slow but steady progress in the field of education also. The achievements in the educational field were

the outcome of the efforts of great personalities like Gopal Krishna Gokhale, B. B. Palande, J. B. Modak, J. B. Dixit, G. L. Bhawe, D. N. Wandrekar and Annasaheb Vartak.

Shri P. S. Deshmukh, the Ex-President of Zilla Parishad, along with Shri Bhausaheb *alias* H. G. Vartak struggled hard for the eradication of *Palem* system existing in the district.

The industrialists have also a lion's share in the upliftment of public life in general and educational and cultural fields in particular.

The district people actively participated in the freedom struggle in large numbers. Some of the eminent freedom fighters are Bal Samant, Kashinath Pagdhare, Govind Thakur, Ramchandra Madhav, Laxman Patil, Hegde, Annasaheb Vartak, etc.

The public life in the district has been enriched by the eminent work of a number of patriots and social workers. In this respect, a mention must be made of Shri Harishchandra Patil who has done valuable work in agricultural and social reforms in the *adivasi* areas and founded the well-known institute at Kosbad. Shri Patil was appointed as the first Vice-Chancellor of the Mahatma Phule Agricultural University, Rahuri, in recognition of his meritorious work. Acharya Bhise, Smt. Godavari Parulekar and Smt. Anutai Wagh have rendered an excellent service in the emancipation of *adivasis* from their economic and social oppression. Among the professional politicians who have done valuable work in the economic, political and social development in the district, a mention must be made of Shri H. G. Vartak who was a Minister in the Maharashtra Government for a long time ; Shri Dhamankar, Ex-M. P. ; Shri P. S. Deshmukh ; Smt. Ranganekar, Ex-M.L.A. ; Shri Save ; late Shamrao Patil and the late D. N. Wandrekar.

NEWSPAPERS

In order that public opinion may be sound and effective several conditions are necessary, the important among them being the mass medium of newspapers. The Press is one of the most important agencies in the formation of public opinion. The newspapers, through news and editorials, present facts, the interpretation of facts and future projections and thereby render invaluable service in keeping citizens informed of the problems of the day. This is the most valuable factor in the formation and expression of public opinion.

As the district is in the vicinity of Bombay, all the daily newspapers published in Bombay are in circulation in Thane. Besides the Bombay newspapers, 85 journals are published in the district at present (1977),

of which one is a daily in Marathi, viz., *Thane Vaibhav*, one bi-weekly in Marathi, viz., *Sanmitra*, nineteen weeklies, thirteen fortnightlies, thirty-five monthlies, three quarterlies and thirteen annuals.

Of the nineteen weeklies, ten are in Marathi, viz., *Ahuti*, *Bandha-mukta*, *Darkali*, *Krishnathadi*, *Merit*, *Pachola*, *Pratiyogi*, *Samajonnati*, *Thane Times* and *Viva*; *Setu-path* in Hindi-Marathi; six in Sindhi, viz., *Chingari*, *Duniya*, *Hindshakti*, *Sindhi Times*, *Rabhar* and *Sindhi Weekly*; one in English, viz., *Merit*; and one in Gujarati viz., *Janashahi*.

Of the thirteen fortnightlies published in the district, ten are in Marathi, viz., *Adiwasi Times*, *Belphul*, *Durgadi*, *Janapariwar*, *Kulgaon Samachar*, *Taluka Samachar* (Ambarnath), *Kalyan Samachar*, *Tarun Palghar*, *Ulhas* and *Christache Vakil*; and two in Sindhi, viz., *Deshawasi* and *Ulhas Nagarik*.

Of the 35 monthlies published in the district, thirteen are in Marathi, three in Hindi, five in English and fourteen in Sindhi. The Marathi monthlies published in the district are *Bharatiya Shikshan*, *Deshastha Rigvedi Brahman Samachar*, *Hangam*, *Koyna*, *Maharashtra Post*, *Post Kamgar*, *Shikshan Patrika*, *Shramikanchi Vatchal*, *Suvarta*, *Thana Zilla Parishad Vikas Darshan*, *Upamanyu*, *Vikas Darpan*, and *Yogesh*. The Hindi monthlies are *Hilans* and *Mentor* while the English monthlies published in the district are *Baptist Buzz*, *Indian Publisher and Book-seller*, *Kripson Pharma News*, *Mentor* and *Unreported Cases*. The names of the fourteen Sindhi monthlies published in the district are *Deshabhagat*, *Film Fashion*, *Film and Filmstar*, *Gulabigulara*, *Kalyan Samachar*, *Kunj*, *Leader of Ulhasnagar*, *Nirankari Mission*, *Shaktidhara*, *Sindha Upakarak*, *Socialist*, *Sojthro*, *Warrior* and *Yugadhara*.

Of the thirteen annuals published in the district, four are in Marathi, viz., *Alakh Niranjan*, *Dnyanjyot*, *Prabha* and *Rucha*; five in Sindhi, viz., *Jahazrani*, *Jagdish Jyoti's Tipno*, *Moomal*, *Pushpa* and *Vindur*; and four are multi-lingual, viz., *Chandi*, *New Era High School*, *R. K. Talreja College* and *Sindhu*.

The three quarterlies published in the district are in Marathi, viz., *Anandban*, *Manobodh* and *Sandu*.

The radio and television have emerged as very important media of mass communication and education. The programmes broadcast by the Bombay Station of All-India Radio are received in all parts of Thane district. The television programmes relayed from Bombay Doordarshan Centre are received in more than half the area of Thane district. Radio sets have become quite common all over the district, and are found even in the remotest parts of the district. There are a number of television sets in the towns nearer to Bombay.

POLITICAL REPRESENTATION

Political parties are an important instrument of formation and organisation of public opinion. They also play an important role in educating the public and in giving a direction to the currents in public opinion.

Like all other districts in the State, there are a number of political parties in Thane District, the noteworthy among which are Congress (U), Congress (I), Janata, Peasants and Workers Party, and Communist Party (M). In 1977 Lok Sabha Elections both the Parliamentary Constituencies were represented by the Janata Party, while in 1980 the Janata Party retained one and the Congress (I) won the other Constituency.

In 1978 Assembly Elections, there were thirteen Assembly Constituencies, of which five were reserved for Scheduled Tribes. The highest percentage of voters to total electorate appeared in Vasai Constituency. The statistics of elections held in 1978 for the State Legislature is given in Table No. 1, while Table No. 2 gives Lok-Sabha election statistics for 1977.

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

The account of some of the organisations in the district is given below :

Educational Institutions : The educational institutions in the district may be classified as under :—

- (1) Institutions imparting general education.
- (2) Organisations which undertake research and provide specialised information, advice and leadership.
- (3) Organisations providing aid to other institutions in the cause of education.

Kelwa Mahim Education Society, Thane : This society was founded in January 1945 to undertake the management of an English high school already established in 1944. The main object of the society is expansion of educational facilities by starting, affiliating or incorporating schools for imparting primary, secondary and technical education.

The management of the society is vested in the governing council consisting of 42 members. The general body of the society consists of patrons, fellows, associate life-members, sympathisers and honorary fellows. During 1967-68, there were 250 members of the society. At the end of March 1968, the total assets of the society were valued at Rs. 1,41, 655. It owed a total debt of Rs. 22,494 to Government as well

as to non-Government bodies. The income of the society amounted to Rs. 90,680 ; while the expenditure was to the tune of Rs. 87,160 during 1967-68.

During 1967-68, the society received grant of Rs. 63,678 from Government ; of Rs. 3,000 from Kelwa Mahim Multi-purpose Co-operative Society and of Rs. 1,000 from the Kelwa Mahim Gram-panchayat as also an amount of Rs. 1,025 by way of donations.

The society started a school with only ninety students but its present strength is about 650 students.

South Indian Association, Dombivli : The South Indian Association, Dombivli, is a registered institution established in February 1948. The aim of the association is to bring together and protect the interests of all South Indian residents of Dombivli and near about.

The association is managed by the managing committee consisting of twelve members including office-bearers. During 1969-70, the total membership of the association was 208.

The association conducts a high school and a primary school at Dombivli. During 1969-70, the total number of students in the high school was 589.

During 1969-70, the income of the association amounted to Rs. 12,809.86, whereas the expenditure was to the tune of Rs. 14,589.62. The high school received a Government grant of Rs. 59,000 during the same year.

Brahman Shikshan Mandal, Thane : The Brahman Shikshan Mandal was established in 1935 at Thane. It aims at attaining the all-round progress of the Brahman community by adopting various means such as conducting schools as well as colleges in Thane city, and also in Maharashtra ; conducting libraries and reading rooms ; and arranging essay competitions, gatherings, debates, etc.

The mandal is managed by a managing committee which is an elected body. The members of the *mandal* are classified as patrons, advisors, life-members and ordinary members.

During 1969-70, the annual income of the *mandal* amounted to Rs. 90,111 while its expenditure amounted to Rs. 73,119. It received private donations to the tune of Rs. 10,000 during 1969-70.

The Brahman Mandal conducts the Brahman Vidyalaya (Pre-Primary), Maharashtra Vidyalaya, and Vartaknagar School.

Bassein Education Society, Bassein : This society was founded in June 1934 and took over the Bassein High School which was re-named as the Raghunath Pandurang Wagh High School.

The management of the society is vested in the governing council. The total assets of the society were valued at Rs. 4,76,330.52 on 31st March 1969. Its annual income was Rs. 32,495.82 while the expenditure amounted to Rs. 20,910.61 during 1968-69.

The society conducts the various educational institutions such as Raghunath Pandurang Wagh High School, Vasai ; Sopara English School, Sopara ; Nana Deoras Samant Adarsha Prathamik Shala, Vasai ; and pre-primary class (Bal Mandir).

The Raghunath Pandurang Wagh High School, Vasai, has a commerce section wherein subjects like typing, carpentry, tailoring and accountancy are taught. At the end of March 1969, the income of the high school amounted to Rs. 1,51,157.24 while its expenditure was to the tune of Rs. 1,51,475.86. During 1969-70, the school had 925 students on its roll.

The Bassein Education Society's Sopara English School had 242 students in 1968. The income of the school was Rs. 47,954.34 while its expenditure was to the tune of Rs. 44,873.58 in 1966-67.

In 1968, the Nana Deoras Samant Adarsha Prathamik Shala had 473 students while the pre-primary class (Bal Mandir) had 154 students on its roll.

Gokhale Education Society, Bordi : The Gokhale Education Society, one of the leading educational institutions, was established in 1918 in memory of Shri Gopal Krishna Gokhale. It conducts three colleges at Nasik, one college at Nasik Road, three high schools at Bombay, one high school at Sangamner, one high school at Jawhar besides the following institutions at Bordi, Kosbad and Talasari in the district :—

- | | | |
|----------|-----|--|
| Bordi | ... | (1) S. P. Hakimji High School.
(2) Godrej Technical Institute attached to S. P. H. High School.
(3) R. J. B. Sharadashram.
(4) S. P. Hakimji Gujarati Primary School. |
| Kosbad | ... | (1) Agricultural School.
(2) Ashram Shala (residential primary school for <i>adiwasi</i> pupils).
(3) Janata Vidyalaya for <i>adiwasi</i> youths.
(4) Training Centre for Village Panchayat Secretaries.
(5) Research Centre in Agriculture and Cottage Industries for Graduates in Agriculture.
(6) Gram Sevak Training Centre.
(7) High School for <i>adiwasis</i> .
(8) Hostel for <i>adiwasis</i> . |
| Talasari | ... | (1) Residential Secondary School for <i>adiwasi</i> pupils and
(2) Ashram Shala. |

Soonabai Pestonji Hakimji High School, Bordi: The Gokhale Education Society's Soonabai Pestonji Hakimji High School named after the mother of donor, was established on 11th January 1920 at Bordi. The school authorities claim to inculcate among the pupils the spirit of service and national integrity free from sectarianism and provincialism.

The school is situated in the scheduled tribe area of the district and has been working in rural environment with extensive lands surrounding it. Instructions are given both in Marathi and Gujarati media. The school has a hostel which accommodates large number of pupils coming from within and outside the district. The school authorities claim to have carried out experiments in respect of syllabus, methods of examinations, extra-curricular activities and social services. Since 1955, it has been recognised as multi-purpose high school with agriculture as an optional subject. The school has a well-equipped gymnasium and a separate building for its library. It has a science club as well.

Chinchani-Tarapur Education Society: The Chinchani-Tarapur Education Society was established in 1910 at Chinchani. All matters connected with the society are managed by the managing committee consisting of twenty-one members. The board of trustees consists of five trustees, two of whom belong to the family of Seth Kanji Dharmasey and the remaining three are chosen by the general body from amongst the patrons.

The society manages the Kanji Dharmasey High School at Chinchani so as to provide middle school education. The total assets of the school were valued at Rs. 3,03,509, during 1968-69. The annual income of the institution amounted to Rs. 1,43,000-00 while the annual expenditure amounted to Rs. 1,42,986-00 during the same year. The school is housed in its own spacious building built in 1921 with the help of donations and funds. During 1968-69, the school had 734 students, including 272 girls, on its roll. The school has Gujarati and Marathi media of instruction. The authorities encourage extra-curricular activities. Since 1970 vocational guidance and students counselling have been introduced for the benefit of the students. Besides, the society started the Mahatma Gandhi Shishu Mandir in 1967.

Balak Mandir Sanstha, Kalyan: The Balak Mandir Sanstha was established at Kalyan in July 1949 with the object of starting pre-primary, primary and middle schools at Kalyan. At present, it conducts three institutions : a pre-primary school (1949), a primary school (1955), and the Captain Ravindra Madhav Oak High school (1963).

A board of trustees looks after the activities of the institution. The well-wishers, life-members and patrons of the institution together numbered 166 in 1967-68.

The total assets of the society including building were valued at Rs. 1,53,000. During 1967-68, the total annual income of all these three institutions and that of the society amounted to Rs. 1,53, 129-00 ; while the total annual expenditure in the same year amounted to Rs. 1,58,753. The institution constructed a building for its school at a cost of Rs. 99,891-00.

The pre-primary school gets financial aid of about Rs. 1,200 from the Social Welfare Board.

During 1967-68, the total number of students studying in these three institutions was 1,772.

People's Education Society, Thane : The People's Education Society, one of the leading educational organisations in Thane, was formed in January 1936 with the aim of encouraging and spreading educational facilities among the people in the district. The society was registered under the Societies Registration Act of 1860 in August 1937 and later on it was also registered under the Bombay Public Trusts Act of 1950 on 12th November 1952.

The affairs of the society are managed by the governing body, school committee, board of life-members, trustees and teachers' council. The members of the society are classified as patrons, benefactors, fellows, sympathisers, honorary members and life-members. The total number of members of the society during 1970-71 was 47.

The total assets of the society during 1969-70 were valued at Rs. 10,99,576-00. The total income of the society during the same period amounted to Rs. 8,30,746-00, while its annual expenditure amounted to Rs. 7,51,696-00. The society received Rs. 3,29,656-00 as grant from Government during the same year.

The society at present conducts four middle schools and a primary school at Thane, viz., (1) New English School, (2) New Girls' School, (3) Naupada Middle School, (4) Bharat High School, and (5) Primary School. During 1969-70, the total number of students on the rolls of all these schools was 3,937.

Murbad Taluka Duiyamshikshan Sanstha, Murbad : The institution runs the New English School at Murbad and was founded in 1950 with the motto of spreading and promoting secondary education in rural areas.

The New English School started by the institution conducts various cultural activities. Besides, every year it undertakes the scheme of small savings in which students as well as teachers invest money. The school has so far invested about Rs. 5,000 in this scheme.

During 1969-70, the total assets of this school were worth Rs. 95,000. The annual income of the school in 1969-70 comprising government grant, receipts of fees, and donations was to the tune of Rs. 91,270-94 while the annual expenditure amounted to Rs. 83,520-05.

Agashi-Virar-Arnala Education Society, Agashi : It was registered in 1942 mainly to take over the charge of Kashidas Ghelabhai High School at Agashi which was established in 1926 under the control of General Education Society. It was also established with the motive of spreading and promoting education through establishing educational institutions.

In 1967-68, there were twenty-three patrons, fifteen associates and 254 life-members of the society.

In 1969-70, the value of assets and property of the society was estimated at Rs. 5,87,000-00. The annual income of the society in the same year was estimated at Rs. 1,66,796-14 while annual expenditure was to the tune of Rs. 1,30,692-00. The society during the same period received Government grant and donations amounting to Rs. 3,26,670-00 and Rs. 14,542-00, respectively.

Besides the Kashidas Ghelabai High School, the society conducts the Annasaheb Vartak Smarak Vidyamandir, Dr. D. J. Galwankar Vidyamandir, Vidyamandir at Chandip and a primary section of the Kashidas Ghelabhai High School.

The Annasaheb Vartak Smarak Vidyamandir was established in 1956 at Virar. During 1969-70, the number of classes conducted by the school was 21 and the number of students on its roll was 856. The annual expenditure of the school during 1969-70 was Rs. 1,56,265-21 while the annual income was Rs. 1,59,467-88.

Dr. D. J. Galwankar Vidyamandir, Arnala, was established in 1961. During 1969-70, the number of students on its roll was 424. The total annual income of the school was to the tune of Rs. 85,795-84 during 1969-70 while the annual expenditure amounted to Rs. 81,699-11.

The Vidyamandir, Chandip, was established at Chandip in 1964 by the society as there was no middle school in the eastern part of the rural area in Vasai taluka. The total number of students in the school was 120 during 1969-70. The annual expenditure, including repayment of loans, was Rs. 37,553-74 and the annual income was to the tune of Rs. 31,940-43 during the same year.

Kashidas Ghelabhai Primary School was started in 1964 as a section of the parent institution. During 1969-70, it conducted four classes and had 199 students on its roll.

Barve Education Society, Vasai : The Barve Education Society was established at Vasai in June 1943 with the object of promoting education in the district. The membership of the society during 1955-66 was 57.

The society conducts the New English School, Vasai and the Nirmal Vidyalyaya, Nirmal.

S. S. Mandal's Girls' English School, Kalyan : The S. S. Mandal's Girls' English School was established in November 1932 at Kalyan with the object of providing educational facilities to women.

The assets of the institution were valued at Rs. 10,000 in 1968-69. The income amounted to Rs. 70,000 while the expenditure amounted to Rs. 72,000 during the same period.

The strength of students of this school was put at 510 during 1968-69.

Konkan Muslim Education Society, Bhiwandi: The society was established in October 1921 with the object of promoting secular education in the district and had 74 members in 1968-69.

The assets of the society were valued at Rs. 6,85,451.75 in 1968-69. The income amounted to Rs. 3,64,242.08 whereas its expenditure was to the tune of Rs. 3,21,650.66 in 1968-69.

The society conducts the Rais High School, Bhiwandi and the K. M. E. Society's High School, Padgha-Borivli.

Vajreshwari Shikshan Prasarak Mandal: The *mandal* was registered in 1958. It has an executive committee comprising chairman, vice-chairman and secretary which looks after the day-to-day administration. It had a membership of 150 in 1969-70.

It owns two spacious high school buildings constructed at the cost of Rs. 1,25,000 at Vajreshwari and Ganeshpuri. The *mandal* also runs the Harijan-Girijan Kanya Chhatralaya.

The *mandal* conducts the Vajreshwari New English School at Vajreshwari and the Renuka Vidyalaya at Zidke.

In 1970-71, there were 133 boys and 76 girls on the roll of the Vajreshwari New English School.

The General Education Society: The General Education Society was established at Dadar (Bombay) in 1892 with the object of spreading education by establishing educational institutions. The society conducts in all twelve educational institutions in Bombay, Thane and Kulaba districts, of which five are situated in Thane district. A brief account of the educational institutions conducted by the society in Thane district is given below :

M. H. High School, Thane: This school was established in 1892. During 1975-76, the strength of the school was 2,069 while the staff consisted of 61 teachers. The school also conducts vacation classes.

S. V. Joshi High School, Dombivli: This school was established in 1937 and had 1,617 students and 46 teachers in 1975-76. The Vidyarthi Bhandar of the school has started "poor boys fund".

New High School, Kalyan: The school was established in 1941 and had 1,658 students and 58 teachers during 1975-76.

Kalyan High School: It came into existence to inculcate the spirit of education among the students in the year 1870. During 1975-76, there were 1,168 students and forty teachers in the school. Besides various cultural activities, the students take keen interest in the *Sharadotsava* celebrations.

P. R. High School, Bhiwandi : It was established in the year 1937 with the object of spreading education among the children in rural areas. In 1975-76, there were 1,569 students and 48 teachers in the school. The school conducts an English Medium K. G. School. The *Geeta* recitation contest is a regular feature of the extra-curricular activities of the high school.

Harijan-Girijan Samaj Unnati Mandal : The Harijan-Girijan Samaj Unnati Mandal was established at Bhiwandi with the object of providing education and improving the socio-economic conditions of the backward communities. The executive committee looks after the administration. The *mandal* conducts one Arts, Science and Commerce College, ten high schools, ten hostels, two *ashram* schools, eight *balwadis*, four *sanskar kendras*, three *balyuwak* guidance centres and a tailoring institute for ladies at Bhiwandi. The *mandal* runs the Shiroshi Vibhag High School which was established in June 1967 in the rural areas of Bhiwandi taluka. The high school annually receives grant from the Thane Zilla Parishad.

The Harijan-Girijan Samaj Unnati Mandal's Bhiwandi-Nijampur Nagarpalika College was established in June 1966 for providing education in arts, science and commerce faculties.

The college possesses its own building worth Rs. 7,00,000 and 25 acres of land. It has also built a staff hostel, a students' hostel and N. C. C. quarters. The day-to-day affairs of the college are looked after by the executive committee. Out of 624 students admitted to the college in 1969-70, seventy students resided in the college hostel.

Tarapur Education Society, Tarapur : This society was established in June 1944, and had 130 members in 1970-71. The day-to-day administration is vested in the managing committee.

The assets of the institution were valued at Rs. 1,22,306 at the end of March 1970. The income of the institution was Rs. 1,20,374-78 where as its expenditure amounted to Rs. 1,03,484-07 in 1969-70.

Vidya Prasarak Mandal, Thane : The *mandal* was established in August 1935, with the object of providing educational facilities in and around Thane. In 1970, the society had 45 members. The assets of the *mandal* were valued at Rs. 5,00,000 in 1970. Its income amounted to Rs. 4,10,000 where as the expenditure incurred was to the tune of Rs. 4,08,000 in 1970.

The *mandal* received Rs. 2,00,000 by way of Government grant-in-aid and public donations.

The *mandal* provides educational facilities starting from pre-primary level to collegiate level. As many as 3,400 students were beneficiaries of the institution in 1969-70. The *mandal* possesses its own building wherein schools and colleges are housed.

Community Welfare Organisations: *Shri Anand Bharati Samaj Thane*: This was founded in 1910 with the inspiration of Shri Anand Bharati. The *samaj* was mainly motivated with the object of making all-round development of the Chandani Koli community which was then suffering from the drawbacks of illiteracy and conservativeness. The *samaj* adopted various measures for popularising education and better ways of life, among the Kolis.

During 1965-66, the *samaj* had 110 members, the total assets being valued at Rs. 50,000-00. The annual income of the *samaj* during 1967-68 was to the tune of Rs. 5,000-00 whereas its annual expenditure amounted to Rs. 4,000-00. It also receives some grant from Government as also from Thane Municipality for its gymnasium.

The *samaj* started a gymnasium in 1928. At present, about 200 girls and boys take advantage of this gymnasium. The *samaj* started a credit society in 1938 and founded a *mahila mandal* for inculcating the importance of education among the women of Koli community in 1945. It also conducts a library and a *kala vikas mandal* for the benefit of girls and boys.

The Daivandnya Brahman Samaj: This *samaj* was registered at Thane in 1908 with the main object of organising the people belonging to the community. The members of the *samaj* celebrate various days of national importance such as Independence Day, Republic Day and birth and death anniversaries of great leaders. The *samaj* celebrates community thread-girding ceremonies of children belonging to the Daivadnya community. It gives financial help to poor students and the homeless and poor people belonging to the community.

The membership of the *samaj* comprising patrons, life-members and ordinary member stood at fifty in 1965-66.

The *samaj* owns two buildings. The annual income of the *samaj* during 1965-66 was Rs. 4,500 while its annual expenditure during that period amounted to Rs. 3,500.

Somvanshi Kshatriya Samajonnati Sangh, Kelwa-Mahim: This organisation was founded in March 1920 at Kelwa-Mahim at the inspiration of the well-wishers and the leaders of the *Somavanshi Kshatriya* community with the object of the socio-economic development of the community. Among other philanthropic activities, the leaders of the community have started primary schools at different places.

During 1967-68, the total membership of the Sangh was 2,902. The *sangh* has built a hostel at a cost of Rs. 1,40,000 wherein 75 students can be accommodated. During 1967-68, the total assets of the *sangh* were valued at Rs. 3,08,429 and the income and expenditure amounted to Rs. 30,210 and Rs. 25,186, respectively.

The *sangh* does not receive Government grant but it receives subscriptions from members and gifts, and donations from public.

Brahman Sabha, Thane : The Brahman Sabha was founded in January 1927. It owns a building wherein there is a spacious hall which is given on hire for the celebration of thread-girding, wedding and other religious ceremonies.

The affairs of the *sabha* are managed by the board of trustees and the executive body.

During 1967-68, the total number of members of this institution was 503 which comprised 454 ordinary members and 49 life-members.

At the end of 1967, the total annual income and the expenditure of the Sabha was the same, amounting to Rs. 51,878-20. Its total assets were valued at about Rs. 10,500 in 1967.

Chandraseniya Kayastha Prabhu Samaj, Bhiwandi : This organisation was established about two hundred years ago at Bhiwandi for organising social celebrations as also for the welfare of the Chandraseniya Kayastha Prabhu Samaj. The institution had 49 members in 1965-66.

The assets of the institution were worth Rs. 10,000 while its income amounted to Rs. 2,200 and expenditure to Rs. 2,100 in 1965-66. It does not receive any financial assistance from Government.

Tarapur Brahman Hitwardhini Sabha, Tarapur : This organisation was founded in December 1916. It aims at providing facilities for the welfare of Brahman community. The management is vested in the executive committee. In 1965-66, the membership of the Sabha was 167.

The society possessed assets worth Rs. 24,214. The income and expenditure of the institution during 1966-67 amounted to Rs. 1,500 and Rs. 1,325, respectively.

It gives financial assistance to the poor students and also to needy people. It has started a library and a gymnasium for providing various facilities to people of Brahman community. The institution does not receive Government grant.

Rotary Club : A branch of the Rotary Club was established at Bhiwandi in August 1959 with the object of providing medical facilities and other philanthropic services to the people of Bhiwandi. The property of the club was valued at Rs. 5,000 in 1968-69.

The club arranges for diagnosis and treatment of patients, and also for vaccinations and other medical care. In addition, the club has started a vocational guidance bureau at Bhiwandi.

Though the Rotary club does not receive any grant-in-aid from Government, it receives donations from the public.

Welfare of Women : Welfare of women is achieved through establishing *mahila mandals* and clubs in the district. These institutions are established with the purpose of providing facilities for social contacts and opportunities for informal education of women.

Mahila Utkarsha Mandal, Kalyan: This organisation was started in October 1942, with the aim of uniting women in Kalyan city and attaining their all-round progress.

The membership of the *mandal* comprises patrons, life-members, sympathisers, and regular members. The enthusiastic but poor women who cannot afford the subscription are enlisted as free members. There were ninety members of this *mandal* in 1965-66. The annual income of the *mandal* including Government grant and private donations was to the tune of Rs. 17,800 while its annual expenditure amounted to Rs. 17,700 in 1965-66.

In the beginning, the working of the *mandal* was confined to the celebration of cultural programmes such as *Sharadotsava*, *Haldikunku*, etc. In 1944, the *mandal* started a tailoring class to enable women in becoming self-reliant. Since 1954, the *mandal* has undertaken the scheme of distribution of milk supplied by UNICEF to children. In all, more than 150 children take advantage of this scheme. In 1959, a family planning centre was established by the *mandal*. At present, the *mandal* conducts the first-aid and Hindi classes.

The *mandal* receives a grant of Rs. 14,000 from Central Government and also some grant from Kalyan municipality for the working of family planning centre. Besides this, the *mandal* receives an annual grant of Rs. 500 from Maharashtra State Social Welfare Board for the working of tailoring and embroidery classes.

Bhagini Samaj, Thane: It was established in 1941 at the inspiration of some enthusiastic women and is now working as a main branch of Mahila Mandal of Thane district conducted by Akhil Bharatiya Mahila Parishad.

It aims at attaining all-round progress of women and children in Thane city through propagation and promotion of educational and social reforms. It also arranges lectures, meetings and debates for enriching public opinion. The membership of the *samaj* is about 100.

This organisation extended its moral support to the struggle for India's freedom and continued patriotic activities even after Independence. The members also participate in constructive activities such as *Shramdan*, family planning, blood donations, etc. It has started a *balwadi* and a primary school at Panchpakhadi, situated in the backward regions of the district.

Social Service League's Free Eye and General Hospital: The Social Service League's Free Eye and General Hospital was established in May 1933 at Kalyan with the main object of providing medical and surgical facilities to the poor and needy people at nominal charges.

The institution on an average undertakes 500 eye-operations and 300 other general operations every year. About 25 to 26 thousand patients visit the hospital for their general check-up.

The institution has its own building worth Rs. 75,000. Its annual income amounted to Rs. 70,000 while the expenditure amounted to Rs. 68,000 in 1967-68.

The institution does not receive Government grant but it annually receives financial assistance from Kalyan municipality and the Thane Zilla Parishad.

Amar Kala Mandal, Vasai : It was established in August 1956 for undertaking cultural, educational and music recital programmes in Vasai and its surrounding area.

The *mandal* had twenty-seven members in 1970-71. The total assets of the *mandal* were valued at Rs. 2,496-96 Its income was to the tune of Rs. 2,458-53 and its expenditure amounted to Rs. 850-18 in 1970-71. It also receives the donations from well-wishers.

The *mandal* has started accountancy and book-keeping classes for commerce students.

Shri Dayaneshwar (Dayana) Mandir Sanstha : This organisation was founded in March 1970 at Kalyan for propagating of Indian philosophy and culture in the district. It strives to arrange for series of lectures of learned men on various subjects. It has got a good collection of books on religion.

The institution had 53 members in 1970-71. Its total assets are valued at about Rs. one lakh. In 1970-71, its annual income and expenditure amounted to about Rs. 5,000.

Though it does not receive Government grant, it receives donations from the public.

PUBLIC LIBRARIES

Marathi Granth Sangrahalaya, Thane : This branch of the Marathi Granth Sangrahalaya was established at Thane on 1st June 1893. Its main purpose is to collect published and unpublished Marathi literature, to publish good books and to provide reading facility to the people. The day-to-day management of the library is looked after by a managing committee.

The library possesses about 1,500 books published before 1900 as also many rare books. The library has a stock of over 40,000 books relating to history, science, religion, law, drama, grammar, poetry and almost all literary fields.

At the end of March 1968, the total number of members of the library was 1,135. The assets of the library were valued at Rs. 3,53,548-07 while its income amounted to Rs. 45,825 and expenditure to Rs. 43,036-43, during the year ending March 1968. The library receives annual grant of Rs. 6,000 from Government and Rs. 200 from Thane municipal committee.

Besides, providing reading facilities, the library also conducts essay competitions, drama programmes, annual gatherings, and arranges series of lectures by eminent scholars.

Sarvajanik Vachanalaya, Kalyan : This public library was established in 1884 with the object of preserving good books and making these books available to the public. It has a free reading room equipped with daily and weekly newspapers and magazines. It also arranges series of lectures by eminent personalities.

The total assets of the Vachanalaya were worth Rs. 57,400. The annual income and expenditure of the library during 1967-68 amounted to Rs. 11,000 and Rs. 10,500, respectively. The library receives annual grant of Rs. 1,000 from Government and an amount of Rs. 500 from the municipal committee every year.

Late Dwarkadas Gowardhan Adhiya Sarvajanik Vachanalaya, Dahanu : This vachanalaya was established on 14th November 1942 at Dahanu. The library possesses assets worth Rs. 50,000. During 1967-68 the income and expenditure of the library was the same amounting to Rs. 2,350.04. The library annually receives Government grant of Rs. 1,000.

Wachan Mandir, Bhiwandi : This library was founded at Bhiwandi in March 1863 and was then known as the Native General Library. Later on after the Home Rule Movement its name was changed to Wachan Mandir on 14th October 1939.

During 1962-63, the total assets of the library were valued at Rs. 40,000. The income and expenditure of the library was the same, amounting to Rs. 4,000. The library annually receives grant of Rs. 1,000 from Government and Rs. 250 from Municipal Committee, Bhiwandi.

Thane Nagar Wachan Mandir, Thane : This library was established in 1882 and was known as the Mulock Library. Later in January 1965, it was re-named as the Thane Nagar Wachan Mandir. It aims at developing a taste for good literature among the people in the district by providing books and periodicals. It also organises lectures by eminent scholars.

The administration of the library is looked after by an executive body consisting of fifteen members. It had a membership of 347 during 1965-66.

The assets of the Wachan Mandir were valued at Rs. 27,341.92. Its annual income amounted to Rs. 3,882.83 whereas its expenditure came to Rs. 3,624.52 during 1965. The library receives annual grant from Thane Municipality.

The library possesses about 3,000 books on various subjects in different languages in addition to periodicals and magazines.

TABLE NO. 1—STATISTICS RELATING TO ASSEMBLY ELECTIONS HELD IN 1978 IN THANE DISTRICT

Serial No.	Name of Assembly Constituency	No. of Polling Stations	Total No. of electors	Percentage of voters to total electorate	Partywise Number of Votes Polled								Invalid Votes
					Indian National Congress (I)	Indian National Congress	Janata	Independents	Peasants and Worker's Party	Communist Party (Markist)	(11)	(12)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
1	Thane	..	157	1,34,014	91,088	67.97	13,203	5,195	49,123	22,246	..	..	1,321
2	Belapur	..	140	1,18,920	73,322	61.66	14,214	12,658	28,018	16,451	..	..	1,971
3	Ulhasnagar	..	125	1,20,635	70,444	63.67	..	..	39,309	69,072	..	..	1,372
4	Ambarnath	..	147	1,21,809	71,794	58.94	5,138	23,470	33,087	2,503	5,571	..	2,025
5	Kalyan	..	224	1,41,719	97,387	68.72	..	8,029	51,933	20,148	15,672	..	1,605
6	Bhiwandi	..	138	1,22,952	70,484	57.33	18,600	11,847	11,769	24,671	1,898	..	1,699
7	Vasai	..	139	1,15,526	86,622	74.98	..	31,412	49,163	4,146	..	..	1,901
8	Murbad	..	134	97,908	71,315	72.84	731	42,242	..	972	24,792	..	2,578
9	Wada (ST)	..	150	1,15,455	64,833	56.15	5,388	17,047	28,989	..	10,899	..	2,510
10	Palghar (ST)	..	118	1,00,765	57,947	57.51	4,630	16,934	32,635	18,035	..	..	1,913
11	Dahanu (ST)	..	135	1,08,031	57,706	53.42	..	21,514	..	7,206	..	26,224	2,762
12	Jawahar	..	152	1,11,921	59,240	52.93	..	17,284	..	8,134	..	29,934	3,858
13	Shahapur (ST)	..	126	92,901	43,091	46.38	..	19,162	..	1,669	20,817	..	1,453

TABLE No. 2—LOK SABHA GENERAL ELECTIONS IN
THANE DISTRICT, 1977

Names of Assembly Constituencies comprised within Thane Parliamentary Constituency	<i>Name of Parliamentary constituency : Thane</i>				
	Total No. of voters	No. of polling stations	Valid votes polled	No. of valid votes polled for the elected candidate	Party affiliation of the elected candidate
(1)	(2)	(3)	(4)	(5)	(6)
Thane ..	1,34,826	127	73,996	45,027	BLD
Belapur ..	1,05,148	107	55,190	29,006	BLD
Ulhasnagar ..	1,21,458	112	59,988	39,141	BLD
Ambarnath ..	1,24,580	124	62,427	34,913	BLD
Kalyan ..	1,41,564	129	81,960	55,011	BLD
Murbad ..	94,560	105	56,794	27,293	BLD
Total for Thane Parlia- mentary Constituency.	7,22,136	704	3,90,497	2,30,502	

TABLE No. 2—contd.

Names of Assembly Constituencies comprised within Dahanu Parliamentary Constituency	<i>Name of the Parliamentary Constituency : Dahanu</i>				
	Total number of voters	Number of polling stations	Number of valid votes polled	Number of valid votes polled for the elected candidate	Party affiliation of the elected candidate
(1)	(2)	(3)	(4)	(5)	(6)
Wada ..	1,10,006	134	59,430	36,877	CPM
Bhiwandi ..	1,17,919	117	55,094	30,472	CPM
Dahanu ..	1,10,972	117	54,269	28,771	CPM
Jawahar ..	1,05,080	132	48,255	30,471	CPM
Shahapur ..	88,006	106	40,747	24,753	CPM
Igatpuri ..	97,641	132	40,583	24,176	CPM
Total for Dahanu Parlia- mentary Constituency.	6,29,624	738	2,98,410	1,75,538	

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CHAPTER 19—PLACES

AGASHI

LOCATED IN 19°28' NORTH LATITUDE AND 72°45' EAST LONGITUDE, Agashi is an ancient settlement and port in Vasai taluka lying about sixteen kilometres to the north of Vasai and about five kilometres to the west of Virar railway station. It is a fairly big village with a population of 22,057 as per the Census of 1971 and it covers an area of about nineteen square kilometres (4,833 acres). The educational facilities to the village populace are provided by five primary schools and two secondary schools. A dispensary and a maternity and child welfare centre besides the private medical practitioners cater to the health needs of the village population. The village has been electrified. Wells and a tank form the main sources of water supply. The village has a post and telegraph office also.

A reference to Agashi is to be found in the *Mahikavati Bakhar*. The fortress in its vicinity is believed to have been constructed by Manibimb, the Raja of Mahim, who deposited innumerable treasures in it. The fort was rebuilt by the Portuguese when in 1530 the region passed under their control from that of the Sultanate of Gujarat.

Though of little consequence today, Agashi in mediaeval times was known as a timber mart and as a ship-building centre. In 1530 it had a flourishing timber trade and built ships as good as the Portuguese, capable of undertaking voyages even to Europe. Very good fishing boats and coasting crafts were also built. The Portuguese burnt the town together with 300 boats in 1530. In 1531, when Agashi was under the control of Mustafa, the Gujarat *Subhedar* of Daman, the Portuguese destroyed it for a second time. The Portuguese probably took possession of the town in 1535 after establishing themselves at Vasai in 1534. In 1535, Antonio da Porto, a Franciscan, built an orphanage for forty boys and named it Nossa Senhora da Zuz. St. Francis Xavier is believed to have paid a visit to Agashi some time in the early 1540's and by 1585, the town came to be dominated by the Franciscan missionaries. In 1540, a Gujarat force, in retreat from Vasai passed through Agashi. Most of the occupants of the orphanage managed to flee. A few were, however, caught, and according to Portuguese accounts, on refusing to embrace Islam, were locked up in the orphanage and burnt. In 1570 Agazim is mentioned

as one of the European ports, a place of trade with Gujarat, and in 1615 as one of the Portuguese possessions between Serra de Bazion and Chaul. In the great hurricane of 1618 a boat is said to have been blown from the sea into a house, killing a woman and a child. In 1634, some Moghal raiders from Gujarat destroyed a handsome Dominican monastery and many other fine buildings. In 1660 it is mentioned as a coastal town and in 1750 as once Portuguese and then Maratha town. During the Vasai campaign of Chimaji Appa, Bakaji Mapkir marched upon Agashi with 400 troops, attacked the port and captured many vessels on 30th March 1737. When finally Vasai fell to the Maratha onslaughts early in May 1739, they were generous enough to grant the Portuguese full liberty of worship and prayer according to Christian rites. This is borne out by the observation of Anquetil du Perron who, in 1760, noticed the streets of Agashi full of Christians going to Church as freely as in a Christian country.

It is believed that Pandurang Hari Joshi, an astrologer of Agashi during the time of *Peshva* Baji Rao I fixed the auspicious day for re-building the Arnala fort. Since the work was completed without any hurdle, the *Peshva* granted him a *sanad* giving him a remission of Rs. 50 in the annual land revenue payable by him. The *Peshva* also persuaded Harisheth Sonar, a wealthy jeweller of Agashi, who had migrated to Bombay to return to the town. On his way back, he was plundered of his effects by Manaji Angre. Happily, at the intercession of the *Peshva*, his wealth was restored to him.

Agashi has a Christian Church, which was built after the destruction of Nossa Senhora da Zuz. It measures seventy-five feet long by twenty-two broad and sixteen high. It has an attached vicarage and the vicar used to draw from the British Government a monthly salary of Rs. 14½. The Church owns nearly eight to nine acres of land which has been brought under fruitful cultivation, and conducts a school with four hundred pupils on its rolls.

There is a temple dedicated to Bhavani Shankar with its *sabha mandap* supported on sixteen wooden pillars, some of which are decorated with carvings. The temple is said to have been built by Shankraji Keshav Phadke in A. D. 1691 (*Shaka* 1613), and was renovated during the Peshavaship of Nanasaheb, the son and successor of Baji Rao I. Within the temple premises are housed a primary school and the *Grampanchayat* office. Close to the temple is a large holy bathing reservoir or *tirth* built in 1691 (*Shaka* 1613) by a relation of the Chief of Miraj, who was cured by the water. A dip in the *tirth* is believed to cure a variety of skin diseases. On its western bank is a shrine dedicated to Hanuman. The town has two other Hindu temples, one dedicated to Vishnu and the other to Ganapati. Agashi

is revered by the Jains as one of their holy places and the Parasnath temple here, which is a comparatively recent construction, was built by one Motilal, a *vani* of Bombay.

An inscribed stone was discovered in Agashi. It is 3'3" long and 1'1.5" broad and 6" thick. At its top is an urn or *kalash*, with a sun and crescent moon on either side. The inscription is in sixteen lines. The letters are well-preserved Devanagari and the language is Sanskrit. It is dated *Shaka* 1072 (A. D. 1150) *Pramoda Samvatsara* (cycle year), during the reign of Shilahara king Harapaldev. The ministers mentioned are Vesupadvala, Shri Lakshman Prabhu, Padma-shiv Raul and Vasugi Nayak. The grant is the fixed revenue of Shri Nevadi in charge of Pattakil (Patil) Raja. The grantor is prince Ahavamalla enjoying the village of Vattaraka in Shurparaka. The grantee is *upadhyaya* Brahmadevabhata, son of Divakarbhatta the son of Govardhanbhata. The witnesses to the grant are Rishi Mhatara, headman of Vattaraka village, Naguji Mhatara, Anant Nayak and Changdev Mhatara.

Agashi conducts a brisk trade in salt, betel-leaves and bananas with Bombay and other places, its dried bananas being the best in the district.

AMBARNATH

Located in 19°10' north latitude and 73°10' east longitude, Ambarnath is a rapidly-growing municipal town in the Ulhasnagar tahsil with a population of 56,276 souls as per the Census of 1971. It is a railway station on the Bombay-Pune branch of the Central Railways and it derives its name from a shrine dedicated to god Ambarnath or Ambareshwar also known as Amarnath. The town is located at an altitude of 35 metres. It receives an average annual rainfall of 2,300 mm. with maximum and minimum temperatures being at 35.3°C and 10.3°C., respectively. Medical facilities to the town population are provided by four hospitals with 62 beds, 38 dispensaries and a family planning centre. Adequate educational facilities are also available. The town has two cinema theatres and one public library and an open air theatre with a garden close to the station. The town has a bevy of factories and modern buildings.

The town, as has already been mentioned, derives its name from the temple of Shiva located therein and literally Amarnath means immortal Lord, a name of Shiva. About the middle of the eleventh century a very rich temple was built over the shrine. The temple which is in a fair state of preservation, is prettily placed on the left bank of a tributary of the Valdhan river in a hollow shaded by old mango and tamarind

trees. From the hollow in which the temple stands, the ground rises on all sides in bare uplands over which about four miles to the south, hang the heights of Tavli and Malanggad. The dark basalt of the temple has weathered black, except some patches which are grey with lichen or rusty with dried grass. The temple is in the many-cornered Chalukyan or Hemadpanti style, with cut-corner domes and close-fitting mortarless stones, carved throughout with half life sized human figures and with bands of tracery and belts of miniature elephants and musicians. The building which is altogether about sixty feet long, is in two parts. On the east is a richly carved and ornamented tower and spire about fifty feet high. The spire is nearly entire on the north but has fallen on the south. To the west of the spire is the *sabha mandap* or the hall which is about thirty-five feet high, with a domed central roof and three domed porches on the north, the west and the south, each porch supported by three pairs of richly carved and ornamented pillars.

Entering from the west or the main door, is a twelve feet square porch, approached by three steps and with three pairs of richly carved pillars about ten feet high and five feet round supporting a roof which is domed outside but with a flat inside ceiling richly carved in geometric designs. The third pair of pillars is half built into the wall and the space between the second and third pairs is filled with a wall of smooth dressed stone. A somewhat broken *nandi*, carved and ornamented, occupies the centre of the porch. Through a richly carved doorway the hall is entered by a lobby, about six feet long by nine and a half broad, with walls of plain dressed stone, except carved pilasters in the outer corners and a pair of richly carved half detached pillars at the inner end. The floor is paved with long slabs of dressed stone and the stone ceiling is carved with beautifully clear cut geometric tracery. The lobby leads to the twenty-two square feet hall. Like the lobby, it is also paved with long slabs of dressed stone. Except the pair of rich half detached pillars at the mouths of each of the three lobbies and of the east lobby or vestibule which leads into the shrine, the walls are of plain dressed stone. On the inner face of the lintel over the pair of pillars at the entrance to the north lobby is a Sanskrit inscription of the eleventh century.

The hall consists of a central square of thirteen feet, raised four inches above the level of the rest of the floor surrounded by a four-foot-broad aisle. The ceiling of the aisles is richly carved with a frieze of sculptured figures in compartments. Over the frieze are a few mouldings, and above the mouldings is a deep cornice with two large flowered corvettes reaching to within a foot of the architraves of the central columns. These central columns, which stand at the four corners of the central square, are ten feet high and vary in girth from

about ten feet at the base to five feet about half way up. The shafts of all the columns are richly carved with tracery and human figures. They are nearly square at the base and change into octagons a little above one third of their height. The capitals are round and rest on square plates, or abaci surmounted by square dwarf columns which end in the usual bracket capitals of the older Hindu works. At first sight, the pillars seem to vary little in design, but a close examination shows that they are carved in pairs, the pair next to the shrine being the richest. These four pillars support a dome about five feet deep from the outer rim to the centre. Round the outer rim of the dome is a frieze of dancing figures, and inside of the frieze are four narrowing tiers of outstanding geometric tracery, all beautifully carved and rising to the centre of the dome. East from the central dome to the shrine the ceiling is of stone slabs carved with images and geometric patterns. In the east wall, on either side of the passage to the shrine, is an image niche, the jambs carved with elephant and tigers. The niches on the right or the south side contains a defaced image of Ganapati, still an object of worship. The left or north niche is empty. Each of the side walls of the vestibule or the lobby that leads to the shrine has a small empty recess and over it a carved pediment. In the middle of the east or the shrine wall is a door about nine feet high by four broad, with an ornamental threshold raised about a foot above the level of the hall, the front carved with a much-worn belt of swans. The jambs have a neat pilaster and the pediment above is ornamented with a double band of figures, Shiv in the attitude of contemplation and *yogis* below and elephants and lions above, and over the elephants a cornice with damaged figures. On either side of the door is a row of three figures about two feet high, the central, a male figure wearing a tiara and holding something in his left hand. Of the side figures, the two near the doorway are females, probably attendants, and the outer pair are males. Below the central male images are small female figures apparently intended for Parvati.

Through the door nine rough irregular steps lead about thirteen feet below into the *gabbara* or the shrine. The shrine is a paved chamber thirteen feet square. The walls, which apparently were originally of smooth close fitting dressed stone are now roughened by weather and probably by violence. The north wall has traces of two cornices, one about four and a half feet and the other about eight feet from the ground. The walls rise plain, rough and four square till about twenty feet from the floor, the corners of the square are cut off as if at the beginning of a dome, the corners being marked by pillars of which traces remain at the north and south corners of the east wall. Traces of pillars are also seen in the north and south walls. About four feet above these corner stones the roof narrows into a circle about eight

feet in diameter, which probably was the outer lip of the dome. Over the dome rose the spire which has fallen in and which falling carried with it all traces of the dome except part of the outer lip of the northern side.

In the centre of the floor of the shrine, surrounded by a cracked, and very roughly cut case or *shalunkha*, is a rounded piece of rough rock about two feet four inches in girth and rising about four inches above the level of the floor. This stone is a natural or self-made *linga*. It is still worshipped under the name of Ambareshwar Mahadev and is probably an early or pre-Brahman object of worship, which has been adopted in the Brahmanic pantheon as a form of Mahadev. The ministrant is not a Brahman but the police patil who is a Son Koli by caste. He brings water every day, sweeps the shrine floor, bathes the god, offering him *bel* leaves and *champa* and *rui* flowers. At night he lights a lamp in a small stone cut saucer. On the great *Mahashivratra* day in *Magh*, an annual fair attended by nearly one lakh pilgrims is held. The pilgrims offer betel-nuts, rice and cocoanuts to the god and bow before him. On that great day eleven Konkanasth Brahmans come from Kalyan for an hour and recite *rudra* prayers for which they have yearly government endowment. On every Monday of the *Shravana* month and on *Tripuri Purnima* thousands of pilgrims visit the temple. The crack in the sacred stone and its envelope has been apparently caused by a blow, perhaps a trace of Musalman zeal.

From the *linga* small channel, which has been repaired with cement leads to a hole in the centre of the north wall. The square holes in each corner of the chamber were probably used for lamp pillars. In the south-east corner about five feet from the floor is a small opening in the wall from which a pipe or channel, six inches by four, runs with a slightly upward slope through the tower wall which is about $7\frac{1}{2}$ feet thick, to a stone trough which stands out from the wall of the tower. The trough or basin is nearly round and about two feet long by six inches broad and eight inches deep. It is of the same age as the rest of the masonry of the tower and seems to prove that the object of worship has always been deep below the level of the ground. The trough was used to fill the shrine with water and drown the water-loving Mahadev in seasons of scanty rainfall. This practice also explains the underground masonry channel which runs from the north wall to the bank of the river. The extreme plainness of the inner walls of the shrine is probably due to the fact that, when the spire was in repair, the shrine was in almost total darkness.

The outside of the temple may be most conveniently examined by going out by the north porch, turning to the left, and passing round by the west and south. The base of the hall is a series of projecting and

receding members with faces about two and a half feet broad except at the north-west and south-west porches where the faces are about five feet broad. Between the porches, the walls of the hall are carved in level belts of tracery and small images, with about seven feet from the ground a rich band of human figures about half life-size. Most of these are female figures, apparently of Parvati and dancing girls. The other belts have rows of elephants about a foot high and figures of musicians and dancers, some of them indecent. Except perhaps on the roof and in the interior of the upper story of the hall dome there is no trace of any other ornamentation except Shaiva decoration.

Passing round the west and south porches, the tower rises like the hall in a series of projecting corners with faces about two and a half feet broad and double that breadth in the centre face of the south-east and north fronts. In these central faces, instead of porches, as in the corresponding parts of the hall, are recesses or niches. The south and east niches are empty. In the north niche is a bearded three-headed male figure with a woman seated on his left knee. From its three heads this figure has been taken to represent a three-headed Mahadev with Parvati in his lap. Five feet above this Mahadev is a statue of Kali in her terrible form, with thin shrivelled body and dropping breasts, her limbs bent, her hands broken off, a necklace of skulls hanging down to her feet and with two serpents, one twined round her neck and the other round her waist. Above Kali, on a level with the roof of the hall in a smaller niche than at the base, is a second three-headed Shiva with Parvati on his knee. Besides these most notable sculptures the whole face of the spire is covered with belts of carving. About four feet from the ground runs a band of curious horned bat like face. The next course is filled with elephants' heads and small human figures with in the face of each outstanding corner, a figure in a niche surmounted by an overhanging canopy. The next belt of carving is a heavy moulding with a boss on each face; the next is plain; and then there is a small single figure on each face. The next course which is the deepest and the richest consists of sculptures illustrating scenes in the life of Shiva and Parvati, and Shiva's chief exploits in the forms he assumed at different times. All the withdrawn and subordinate positions in this course are filled with female figures, one of whom on the north has her back turned and her hair hanging in a large ball. Another on the north-west of the shrine, exceedingly well cut and on the whole well-proportioned, is damaged about the feet. In another part of this line is the skeleton form of Bhiringi, the attendant of Shiva. Above this course the horizontal members become smaller; only the next has single figures on each face. A little higher up is the cornice which is supported by the dwarf figures so common at Ajanta. A curious belt of beautiful carving runs up each face of the spire.

At the south-east corner of the spire about three feet from the ground is the stone trough or the basin already mentioned, through which water was poured to deluge the god in seasons of scanty rainfall. At the foot of the broad belt in the north face of the spire is a cut stone cistern four feet deep which through a passage in the wall about ten feet long, receives water that is used in washing and deluging the god. From this cistern, a covered drain lined with dressed stone two and a half feet broad by two deep, runs about twenty yard north with river bank. In the temple wall to the east of the north door is a small shrine of plain dressed stone, five feet square and six feet high, its floor being about three feet below the level of the ground. It is entered without steps through a four feet by three doorway, with jambs and lintel carved in the style of the rest of the temple. In the middle of the floor is a roughly pointed natural stone about four feet round at the base and standing a foot from the floor. Like the stone in the main shrine, it is surrounded by a case or frame about two feet square. The joints of the stones in the walls of this shrine are marked by lines of white, a grey lichen or moss, which from a distance looks like cement.

With the help of a ladder there is little difficulty in climbing on the roof of the hall, the bosses on the stones and the round horn-like rings at the corners of many of the carved slabs forming excellent holding points. The hall-roof rises in the centre in the main dome, and on the north, west and south in the domes over the three porches. To the east separated by the central dome by a passage about two feet broad, rises the very richly carved spire with its top open and the stones round the edge loose and shaky.

The roof of the main dome of the hall rises in tiers of dressed slabs slightly rounded like large pot-lids. A good deal of the ornament has broken and near the top some of it is irregular, bare in exposed places and richly cut in unseen corners, as though the dome had been finished by employing stones taken from some older buildings. On the east face of the roof of the dome, in the narrow passage between it and the spire, a door on the left leads through a lobby about three yards long into a central room seven feet by six and about eight feet high. The ceiling of this room seems once to have been domed, but the inside of the dome was either never finished or it has fallen and been replaced by a rough central stone and bits of broken carving. The supports of the roof are irregular. In the west side opposite the doorway, is a defaced pillar apparently once ornamented and at the north and south are haphazardly piled up stones, square roughly hewn blocks and fragments of carved columns.

Round the central chamber runs a low passage, about twenty yards long, two feet six inches broad, and two feet nine inches high. Besides this, three passages run from the central chamber to the domes above

the porches. The passages to the domes of the north and west porches are open and in fair order; the passage to the south is in ruins. They are about three feet broad and nineteen feet long, and in height fall from six feet to about two feet. They lead to small chambers, about three feet high and three feet square lined with rough masonry, much of it fallen from its place. Besides these passages an underground passage, three feet three inches broad and two feet ten inches high, runs through a hole in the floor of the central chamber, twenty feet east, to a window on the west wall of the shrine.

The temple enclosure, which is roughened by heaps of stones, many of them richly carved, measures fifty yards from east to west and thirty-five yards from north to south. It has been surrounded by a wall, and in the east had a flight of four steps about ten yards long on the river-bank. About fifteen yards to the west of the temple are two ruins of two very richly carved gateways, with steps that lead to the raised ground beyond tulsī, in the north-west corner, is a devotee's cell of plain dressed stone nearly five feet square and six high. The raised ground to the west of the ruined gateways seems to have been enclosed by a wall of which, in places, the foundation may be traced. Opposite the south door are the remains of a wall with a figure of Ganapati in a niche. About two yards to the west a door with carved jambs and pediment leads to a pond twenty-six feet by twenty-four, surrounded by a ruined wall with elaborately carved groups of human figures. To the right, in a field beyond the line of the enclosing wall, is a circle of carved stones.

Across the rivulet, about a hundred yards to the east, is an oblong masonry-lined pond measuring about twenty-seven yards long by twenty-four broad, with a flight of long steps on the east and the south. Six stones, carved with beautiful geometric patterns, one on the east and five on the north, have been built into the base of the reservoir wall. This pond is a much later construction, probably Maratha, being built with mortar. According to the local inhabitants while the reservoir was built by humans, the temple was the work of the spirits and the gods, and was finished in one night.

On the inside of the lintel over the north door of the hall is an inscription in six lines. It gives the details of the builder of the temple and its date, but is so worn out that the whole of it cannot be read. As far as can be made out this inscription states that in A.D. 1060 (Shaka 982), during the reign of *Mahamandaleshvar* Mamvanirajadev, the royal priest and three other officers built a temple of king *Mahamandaleshvar* Chhittarajadev. This Chhittarajadev was a king of the Shilahara dynasty (A.D. 810-1240), the brother and predecessor of Mamvanirajadev. Perhaps by using the phrase a temple

of Chhittarajadev the builders meant that the merit of the work should be counted to their late master.

Recently the temple has been renovated and the area surrounding the temple has been cleared. It has now become a picnic spot besides a place of worship.

ARNALA FORT

Arnala fort, also known as Janjira or the Island fort, is situated at the north-west corner close to the water's edge of a small island of the same name,¹ and is approximately 14.49 kilometres north of Vasai and is located in the village of Agashi in Vasai taluka. It was constructed by the Gujarat *Sultan* Mahmud Begada about the year 1516 and commands the southern and main entrance to the Vaitarna river which is the most extensive inlet in north Konkan.

In 1530 the Portuguese found Arnala a strong fort in the hands of the Gujarat Musalmans with domes and Saracenic arches. The Portuguese destroyed them and made over the place to a Portuguese gentleman of Vasai. They constructed an oblong square about 700 feet (213.360 metres) with a round tower and provided it with a guard of soldiers.² The fort was wrested by the Marathas from the Portuguese towards the close of March 1737 and re-built it at the orders of *Peshva* Baji Rao I. The architect was one Baji Tulaji. That the fort was re-built by the Marathas in 1737 (*Shaka* 1659) is borne out by a Marathi inscription on the northern gateway. When in 1781 the Maratha commandant refused to yield the fort to the British, preparations were made for bombarding it from Agashi.³ The fort fell to the British in 1817 and for sometime it was guarded by a small detachment of troops.⁴

In 1818 Arnala was described as an oblong square of about 700 feet defended by round towers. The general height of the works including the parapet was about thirty feet (9.144 metres). There was no ditch or outwork. The body of the rampart was throughout of solid masonry and in good condition, but the parapet was of inferior dimensions, and in many places, especially near the towers, was much in ruins. The interior of the fort was covered with trees and swamps. Among the coastal forts in north Konkan it ranked next to Vasai in size and strength and was even superior to Vasai in the uniform breadth of its rampart top, or terreplein, and its uniform line of defence. In 1862 it was described as surrounded by water and in very good order. Water

¹ The Island was known to the Portuguese as "A Cows' Island" or *Ilha de Vaccas*.

² Da Cunha's *Bassein*, p. 159.

³ Grant Duff, p. 442; *Memoirs of a field Officer*, p. 321; *Nairne's Konkan*, p. 102

⁴ Dickinson in *Nairne's Konkan*, p. 117.

was ample but there were no other supplies. Today the fort is in a fair state of preservation and comparable water-supply.

Arnala has two temples, one dedicated to Trimbakeshwar and the other to Bhavani. There are also the tombs of the two Muslim saints, viz., Shahali and Hajiali and a stone-lined octagonal pond and many wells. In 1930 the first salt *satyagraha* in Thane district took place in the village of Arnala.

ASAVA FORT

Asava fort, probably Visavagad, referred to in the *Mahikavati Bakhar* is situated about eight kilometres north-east of Palghar railway station on the Western Railway. It is believed to have been the resting place of the Bimb Rajas of Mahim. While the ruined outworks of the fort are of their time, the water tanks are of even an earlier date. The fort stands atop a hill about 800 feet (243·800 metres) high which is very steep and especially so on its northern side. Except below the fort, the hill is generally wooded. A long narrow saddleback joins it with the high ridge of trap-hills which stretch north and south. Another short saddleback connects it with one or two tower hills to the west. Its position at the north point of the Mahim range gave Asava the command of the opening between the Mahim ridge to the south and the Dahanu ridge on the north.¹ The fort had a special importance in that it helped to keep open the military communications between the great fortress of Asheri and Mahim, Shirgaon, Chinchani, Tarapur and Dahanu. Below the fort is the large village of Mahagaon said to have been founded by Mahibimb of Mahim. It was a flourishing town in the days of yore and its numerous hamlets indicate that it was once a place of much importance.²

In 1818 Captain Dickinson described Asava as a hill-fort between 600 and 700 feet high. Its top about 500 feet long and about 250 feet broad was once inclosed with works of which nothing remains except a low ruined wall of loose stones with here and there a dwarf parapet of the same material. A little knoll within the fort shows traces of works, and three reservoirs which yielded excellent water. Now the water has practically dried up.

ASHERI FORT

Asheri fort crowning the top of the great Asheri hill which dominates the surrounding landscape lies to the north of Pavli in the

¹ On the southern point of the Mahim ridge stands Tandulvadi and about the centre the high peak of Kaldurg. This whole ridge is impossible for carts and never seems to have had much of a footpath across it. In 1881 a good road was made over the Chahad pass below Kaldurg. Mr. W. B. Mulock, C. S.

² W. B. Mulock, C. S.

Palghar taluka and nearly 32 kilometres north-east of Mahim. Local tradition ascribes the building of the fort to a certain Bhoj Raja. At the beginning of the fourteenth century, it was captured by Bimb, the ruler of Mahim, from the Naiks or the Kolis.¹ The Mahim ruler made Asheri, the headquarters of a *mahal* and stationed a considerable force there.

In 1556 the fort fell into the hands of the Portuguese who made it the headquarters of 38 villages and six parishes. It was the key to their possessions in north Thane and sheltered the rich rice-yielding village of Vasai from land attacks. It acted as a bridle in respect of the neighbouring chiefs, the Chodharas (the Chandhars) in the north-east, the Kolis in the east and the Ahmadnagar kings in the south-east. At the base of the hill in the forest was the Koli settlement of Varanipur. It was strengthened by a Portuguese stockade armed with three guns. The hill was so steep that the ascent had to be made either bare foot or with the help of ropes. On the way up there were thirteen passes of which the principal were the Gate Pass, the Evening Pass, the Prabhu Pass and the Cow Pass. The main line of approach was through a pass known as Salada which was defended by a stockade and Koli guard. Beyond Salada a foot-path ran through a narrow and steep defile called the Pass of Good Hope, so known because one slip would dash the climber to pieces. At the top of the defile the gate was entered through a cave from which a staircase of seventy steps led to the top of the rock. Here was another strong gate guarded by four Portuguese families. Inside of this was a second fortified door armed with two falcons. The top of the hill which was 1,600 paces longer than it was wide, was large enough to provide place for breeding cattle, sheep and pigs. It commanded an excellent view of the country around and in the far west the sea could be sighted. The top of the rock was not fortified but around its edge were arranged large stones for hurling on any assaulting force. There were twenty water cisterns and two reservoirs. The garrison numbering about 700 including women and children, consisted chiefly of pardoned criminals.

The Portuguese placed a premium on Asheri and took every care to protect it thoroughly. Portuguese families guarded the gates and entry and egress were barred without the commandant's permission. At sunset the keys were handed over to the commandant, the gate-keeper receiving them from the commandant at sun-rise. The garrison was kept on the alert round the clock. A night guard of fifty archers and Christian soldiers kept vigil. For light they burnt torches of cane which blazed the fiercer the more they were moistened with water. In 1613 when reductions were effected in other forts, Asheri and Mand were

¹ Nairne's *Konkan*, p. 22

kept at their full strength. About the middle of the seventeenth century Asheri seems to have been captured by the Moghals, but the Portuguese re-gained it by bribing its Abyssinian commandant with a sum of Rs. 6,500. It could not be carried by storm because it was an impregnable castle entered by a crooked path cut out of the mountain and could be defended by a few guards who could, without much effort, withstand an army by rolling down stones.¹

In 1720 it is described as an inaccessible and most gigantic natural fort with a plain on the top large enough to accommodate 15,000 men, and with pasturage for cattle and provided with great cisterns and fountains. The passes through which alone access could be had to the top were narrow crevices opened by time and nature. Their walls were of black stone joined with pieces of Khair wood, a very ancient and admirable work. The ascent was by a flight of steps cut in the rock. At the top of the rock was the fortress with iron doors and then another very narrow staircase led to a second door through which the way lay to the top. Then came the round and very old fort. To the north-east was a ruined tower without doors or pavement and an open church. The church and the houses of the commandant and the soldiers were ruined and neglected. It was garrisoned by only 150 men and three corporals. They served less as soldiers and more as labourers carrying the commandant's timber.

During their Vasai campaign, the Marathas under the leadership of Chimaji Appa captured Mahim early in 1739, thus cutting off the Portuguese communications with Asheri. On 24th January 1739 the fort surrendered to the Marathas. The Marathas held it until 1817 when it passed under British control.

Captain Dickinson described the fort in 1818 as situated in forest-covered land on a hill about 1,000 feet high. Though easy at first the latter part of the ascent was steep and difficult. It was an almost perpendicular staircase hewn out of solid rock forty feet high. At its top was an iron door fixed horizontally. From this door the ascent, no less steep and of equal height, led to a second gateway, the brow of the hill being built up on both the sides to block access on either flank. The only other works were a ruined circular enclosure one hundred feet higher and on the top of the hill a detached eight-sided tower also in ruins. Though the defences of the fortress were in ruins its natural strength was so great as to enable a handful of men to hold it out against any odds. On the hill-top there was an open space of about half a mile. On this space and near the circular enclosure were three fine ponds and a few huts occupied by the garrison sepoys. In many places the soil was excellent.

¹ Gemelli Careri in *Churchill IV*, p. 190.

In 1862 the fort was amidst ruins and in 1881 the gate of the inner fort had almost entirely collapsed. About 150 paces east of the fort were the remains of a six-cornered laterite tower and near it a large stone with a cross and some writing in Portuguese which is now defaced. There are ten reservoirs, eight inside and two outside the outer wall. Of the eight outside of the wall, five form a group to the north-east and three a group to the west. The two inside ponds, each fifty feet square, are of stone protected by low laterite walls. One of these is with steps and the other without. Besides these there are two more cisterns. Most of these water reservoirs are practically dry or semi-dry. Near the fort is a cellar with openings for light and room for about fifteen persons which is now in ruins.

ATGAON

Atgaon is a railway station about eight kilometres north-east of Shahapur the headquarters of the tahsil bearing the same name in which it is located and 94.951 kilometres north-east of Bombay. The place gets its name from eight scattered localities which in the past constituted the village. The village covers an area of 1,374.267 hectares and has a population of 1,767 souls as per the Census of 1971. The village has been supplied with electricity and has facilities for primary education. The village has a post office and is served by the M.S.R.T.C. buses. Wells form the main source of water-supply to the village population.

Atgaon has a small temple probably of the twelfth or thirteenth century. The temple stands about 1.20 kilometres south-west of the station at the top of a small glen that crosses the high ground on the south side of the Atgaon valley. From the station the path runs south-west through rice lands, across the mouth of the Atgaon valley, which runs west between two teak-covered spurs that lead to a central fortified head known as old Mahuli. On the banks of a pond, about half way across the valley, are some dressed stones apparently part of a Shiva temple. One of the two huts to the right is the shrine of a Musalman saint of the Malang sect of religion; the other is the dwelling of the shrine warden, or *mujavar*. In a dip between two knolls, about nine metres up the teak-covered south spur of the valley stands the Atgaon temple. It is a small ruined building in the early Hindu style of finely dressed black basalt stones fitted without mortar. From the somewhat inferior style of the sculpture it seems to be late, probably of the twelfth or thirteenth century. It is greatly ruined and much hid by long grass bushes, and large trees that rise out of the masonry. There remains an oblong masonry plinth about three feet high, bare of buildings, except at the west end, where a fairly preserved oblong

shrine rises about twelve feet from the plinth. The whole face of the plinth is carved in three belts of deep moulding, which, with some breaks and irregularities, run round the whole building. The entrance was from the east by a flight of steps, thirteen and a half feet broad by nine long, of which scarcely a trace remains. Inside of the entrance steps, the body of the plinth or basement forms a square-cornered oblong space 13.258 metres by 7.620 metres. Of the hall, which was about 7.620 metres square, the only part that remains in its place is a pilaster at the left corner of the inner wall now almost in ruins. From the hall a passage or vestibule (4'8"×4'2"), which was once walled and roofed and of which practically nothing remains, leads to the shrine. The side walls of the passage were plain, except three bands of unfinished tracery that ran round the top. The ceiling of the shrine is flat with a central slab finely cut into a lotus-flower pendant. In the outer face of the shrine wall the slab over the shrine door frame has three carved figures, Maheshvari in the centre, Vaishnavi on the right, and a broken Brahmi on the left. Nothing of the door now remains. Above, on each side of Maheshvari, was an elephant and a lion. The Ganpati in the centre of the lintel shows that the temple was dedicated to Shiv. The side posts of the door have figures of door-keepers, a man and a woman, and outside is another pair of figures. The door opened on a shrine nearly five feet square (5'4"×4'8"), almost on a level with the hall. The shrine walls are of plain dressed slabs and the roof is domed, rising in three tiers to a central lotus pendant. The object of worship is modern, Khan Mata, a figure roughly cut on a slab of stone. The outer measurements of the shrine are thirteen feet by nine and a half, and about ten high. It is separated from the edge of the plinth by an open passage or terrace about seven feet broad. Two level belts of tracery, each about a foot and a half broad, ran round the foot, and two similar belts ran round the top of the shrine wall, leaving a plain central space about four feet broad, in which, in the middle of the south, west and north faces were cut empty niches with pretty outstanding frames and side pillars all of which has now fallen down. At the back, among the upper belts of tracery, were small figures, some of them indecent. The roof of the shrine was flat and oblong. There are no traces of a spire, though in the enclosure many fragments of round myrobalan like, or *amalaka*, spire stones are strewn about. The shrine is in bad repair and two large trees have taken root in it and, unless their roots are cut out, must bring it to ruin.

At the east end of the plinth, a few yards to the north, are the remains of a ruined shrine. The chief place of honour in the north wall of this shrine is empty. But on the east wall, almost hid by a tree-trunk is a roughly cut modern Gosavi-like figure, holding an umbrella. To the east of the temple plinth are the remains of a small building.

perhaps a shrine or pavilion for Shiva's bull or *nandi*. The open space to the south seems to have been surrounded by a wall, and to have had in the west of the enclosure a small shrine or perhaps a built tomb, and in front a row or circle of memorial pillars, or *paliyas*. Three of these broken half-buried pillars were pieced together and set up. They were covered with quaint sculptures, of which details are given later on. On the knoll to the west of the temple are many carved stones. The temple may never have been finished, and these stones may have been carved there and meant for its tower and spire. But the size of the stones and the style of carving seem to show that they belong to some larger and older temple, perhaps of the tenth or eleventh century. Among the carved slabs and pillars which lie scattered in fragments about the temple, chiefly in the open space to the west, are interesting specimens of the memorial stones which are found over Vada and Mokhada, and at Eksar and Magathan. The Atgaon stones probably belong to the eleventh, twelfth and thirteenth centuries. They are of two kinds, memorial pillars and memorial slabs. The memorial pillars are square, about five feet high and one foot broad, with a socket that fits into a hole in a stone base about two feet square. The memorial slabs are like the Eksar stones, flat slabs about eight feet long and two broad, plain behind and carved in front, the top ending in an urn and the base buried about a foot in the ground. All are divided into four or five panels or belts, surrounded by a narrow band of plain stone. Each stone tells the story of the warrior in whose honour it was carved.

The story generally begins in the second panel where a group or pair of men are fighting, and one or more of them are slain. The third panel shows another bout of the fight in which one or more of the fighters fall. The third panel is often filled by a startled huddled group of cattle, to guard or carry off which the fight was fought. In the lowest panel the warrior's body is burned, sometimes with his living wife and sometimes with other men, perhaps his prisoners or his slaves. In the top panel the warrior, or the warrior and his wife, are in Kailas or Shiv's heaven, worshipping a *ling*. The three stones which have been fitted together and set up are all of the first type mentioned in the text, pillars about five feet high and one foot square, fitted with a socket into a square base and carved throughout on all four sides. Two are set in front and one a yard or two behind.

The following are the details of Pandit Bhagvanlal Indraji's reading of these sculptures. The first stone is the east pillar of the front pair. In the east face, in the second panel on the right (spectator's right) a horseman, with a trim beard and a sword in his right hand, rides without stirrups on a prancing horse, which seems to paw at a man on the left. This man, who has a beard, his hair rolled in a top-knot

and long ear-rings and the ends of waist-cloth hanging behind like a tail, plunges a dagger or short sword into the horse's neck, and, with his left hand, wrests the horseman's swords out of his grasp. In the third panel, on the right, a bearded man with his hair in a top-knot and a curious waist-cloth falling like a kilt from the hip to the knee and armed with a shield and sword, attacks an archer who seems to have missed his aim and drawing a second arrow from his quiver. In the fourth panel a man, apparently the archer, lies dead on his funeral pile, and on his left lies his wife, her hair gathered in a large bunch at the back of her head. Flames rise above them in ten jets. At the top the man and his wife are in Kailas or Shiv's heaven, worshipping the *ling*. In the south face, in the second panel, a man on the right, with a pointed beard, his hair in a double top-knot, fights a bearded single top-knot man on the left, who is also armed with a sword and buckler; in the middle lies a slain man, perhaps one of the pair of foemen. In the third panel three frightened cows are huddled together. In the fourth panel a man and his wife lie on the funeral pile. In the top panel is a *ling* in the centre, and two figures on each side worshipping. In the west face, in the second panel two men with beards, single top-knots, large ear-rings and tailed waist-cloths, fight armed with swords and shields. The man in the left is old and apparently is beaten and slain. In the third panel a youth with forked beard, perhaps the son of the old man in the panel above, stabs a swordsman under the chin. In the fourth panel a wife burns with her dead husband, and in the top panel they are in Shiv's heaven, worshipping the *ling*. In the north face, in the second panel, a double and a single top-knot man, both armed with spears, fight. In the third panel a pair of swords-men fight, the man in the left with oddly-dressed hair. In the fourth panel a wife burns with her husband, and in the top panel a man and woman worship in Shiv's heaven.

The second stone stands about a yard to the west of the first stone. In the east face, the third panel has, on the right, a man on an elephant with a sword or a goad in his hand; a man on the left attacks him, but is killed by the elephant and lies dead. In the fourth panel a man is being burned, and at the right corner some figures, apparently servants or people he has slain in battle, are being burned with him. In the second panel a warrior is seated in a heavenly car and attended by heavenly dancers and cymbal-players. In the top panel he worships the *ling* in Shiv's heaven. In the south face, in the second panel is a fight between a horseman on the right and a footman on the left, who seizes the horseman's rein. Below a man lies on the ground. In the third panel a bowman on the left pulls an arrow from his quiver to shoot at a swords-man on the right, below, one of them lies dead. In the fourth panel a man seems

leap into a fire. Perhaps he was beaten and committed suicide. In the top panel a man on the left worships the *ling*; the figure on the right seems to be a priest. Under this panel is a carving, something like a Buddhist trident. In the west face, in the second belt, on the right, two swords-men fight with a man on the left; in the centre one of them lies dead. In the third belt a man on the right runs away and is speared by a figure on the left. In the fourth panel a corpse is being burned, and a man, perhaps the runaway in the panel above, throws himself into the fire. In the top panel a man worships the *ling* in heaven. In the north face, in the second panel, two trim-bearded single top-knot men fight, and one of them is killed. In the third panel are seven cows huddled together. In the fourth panel a man with curled hair is seated on the pyre; in the corner a figure falls into the fire. On the top the man in the fire, with his hair rolled like an ascetic in a braided bunch, worships Shiv in heaven. The third pillar stands about two yards to the south of the other two. In the north face (the face next the temple), the second panel has, on the right, single top-knot man with big ear-rings fighting with a man on the left who has a double top-knot and is armed with a sword and shield. The single top-knot man falls. In the third panel, on the left, a double top-knot horseman fights a single top-knot man and one of them falls. In the fourth panel a double top-knot man lies on the ground and in the top panel he is in heaven, worshipping Shiv. In the east face, in the second panel one single and two double top-knot men on the right fight a swords-man on the left, who seems to be wounded by one of the men on the right and to fall. In the third panel is a band of frightened huddled cattle, and a man on the ground perhaps the slain cowherd. In the top panel a man on the left in heaven worships the *ling*. The figure on the right seems to be a priest. In the west face, in the second panel a horseman on the left with sword and shield fights with a foot swords-man; one falls (his Konkan tail-cloth is very notable, like a third leg). In the third panel a wearied-looking man on the right is struck by a swords-man on the left. In the fourth panel a double top-knot man, who seems different from the figures above, lies on the ground with his left hand raised from the elbow and his chin resting on it. Above on the left a single top-knot man worships Shiv in heaven. In the south face, in the second panel on the right a single top-knot man fights a double top-knot man, both armed with swords and round shields: one has fallen. In the third panel is a celestial car and two heavenly damsels. In the fourth panel is a double top-knot man lying on the ground. In the top panel a man worships Shiv in heaven. The two lowest panels of this pillar are rather hid by the carved urn-shaped top of a slab memorial-stone, the figures in which worshipping a *ling* are specially clear and deep

cut. The rest of this stone, which seems to be older than the others, could not be found.

Besides these three memorial pillar several carved stones have been picked from the ruins and arranged in a rough semi-circle, close to the pillars. Beginning from the east of the plinth, the first of these carved stones on the right is a broken tiger's face. In Mr. Bhagvanlal's opinion this perhaps belonged to an older temple that stood some way up the mound to the west of the present temple, and whose carvings were on a larger scale and better cut than the sculptures in the present temple. The older temple may have been of the tenth or eleventh, and the newer temple of the twelfth or thirteenth century. Next to the tiger's head is a broken group apparently Parvati, and, on her left, Shiv's skeleton attendant Bhiringi, whose wasted upper arm and hollow ribs are well shown. This group is large-sized and probably belonged to the older temple. The next is the figure of a man seated, the head and feet gone, the position easy, and the chest and arms clear-cut and well-proportioned. It seems larger and older than the sculpture on the present temple. The fifth is a cobra, or *nag*, stone, the upper part a man, over whose head rises a seven-hooded cobra. Below the waist the figure ends in a waving snake-tail. The carving is in the smaller, perhaps more, modern style. The sixth is another cobra stone on a larger scale. It shows only the lower waves of the tail. The seventh stone is a fragment, a left hand holding a round buckler : the carving is good in the larger perhaps older style. The eighth stone also in the larger style, is a well-carved group of a man fighting with a pig, which he seems to seize by the legs and stabs with a dagger. Behind, against the tree leans a stone (1'5"×2'8"), the centre carved into the figure (1'10"×1') of a naked woman squatting, crouching. It is probably a Tantrik figure. The knolls to the east and west of the temple have a wide view over teak-covered slopes to the south and south-east, across a long stretch of waving uplands thick with teak coppice and a sprinkling of mangoes and other ever-greens. To the west the gentle wooded slopes of the spurs that flank the Atgaon valley rise to the central fortified head of Mahuli. To the east and south-east, across rice fields and teak uplands, the Sahyadris stretch dimly to the south-west in huge topped blocks.

BADAPOKHRAN

Badapokhran is a fairly big village in Dahanu tahsil lying seven kilometres from Malyan which is four kilometres distant from Dahanu, the headquarters of the tahsil bearing the same name in which it is located. The village covers an area of 1,405·836 hectares and has a population of 5,884 as per the Census of 1971. The village has been

supplied with electricity and wells form the main source of water-supply. Facilities for primary and secondary education are available in the village. A health centre and the maternity and child welfare centre and few private medical practitioners cater to the health-needs of the people. The village is served by *kutchha* roads. A post office is located in the village.

The village is famous in its vicinity for the fair held in honour of Hanuman on Hanuman *Jayanti*, i.e., on *Chaitra Shuddh* 15. About 3,000 people assemble at the time of the fair.

BADLAPUR

Badlapur is a non-municipal town in Ulhasnagar tahsil notified as town for the first time in 1971. It is a railway station on the Bombay-Pune route of the Central Railway and is located about three kilometres from the town and 68 kilometres from Bombay, 34 kilometres from Thane and ten kilometres from Ulhasnagar. The town covers an area of 7.25 square kilometres and has a total population of 4,703 as per the Census of 1971. Divided into six blocks, the number of occupied residential houses was 587 with 841 households.

The total length of roads in the town admeasures only 3.22 kilometres and belongs to the *kutchha* variety. The town is served by open surface drainage, night-soil being disposed of by hand-carts. Wells form the main source of water-supply. The town has been supplied with electricity and as per the Census of 1971 there were in the town 350 domestic connections, five industrial connections, four commercial connections and 105 road lighting points.

A cottage hospital, a dispensary and a family planning centre besides few medical practitioners cater to the health-needs of the population. Educational facilities are provided by two primary schools and one high school. A school for blind is also located in the town. The town has one public library too.

BAHIRUGAD FORT

Bahirugad or Bhairavgad fort, popularly known as Bairamgad, stands on an outstanding table-land and about 600 feet (182-880 metres) above the base of the Sahyadris. It lies a few kilometres north-east of the Naneghat and about thirty-five kilometres east of Murbad close to the village of Moroshi in Murbad tahsil. The fort seems to be a very ancient one. Since it commanded the tracks leading to Mahuli and Junnar fortresses, it was a place of considerable strategic importance right from very early times up to the downfall of the

Marathas. Bahirugad is a perpendicular rock about 100 feet (30·480 metres) high with a narrow base. In 1818 the first forty feet (12·192 metres) of ascent were by a very steep staircase hewn out of the rock. Above the stairway was a massive wooden ladder which gave access to a second staircase. The ladder which was twenty-seven feet (8·229 metres) long was fastened to the top by an iron chain. The second staircase was also almost perpendicular like the one below with a very difficult and dangerous trap-door. The fort stood alone with a deep ravine on either side. Its top was joined with the outstanding and inaccessible peaks of the Sahyadris immediately on the rear. On top of the hill there was a pond and some rooms in the rock which must have served as dwellings. There were some buildings in the plain below. These were occupied by the garrison and there were two springs yielding a sufficient supply of potable water. The steepness of the rock and the nature of the ground at the top made the fort unconquerable even without defensive out-works. In 1862 it was ruinous and without water-supply. There is now no trace of the former buildings on the fort.

BALVANTGAD FORT

Balvantgad fort standing on a hill of the height of about 1,000 feet (304·800 metres) lies in the Vihigaon village about 40 km north-east of Shahapur. It overlooks the Kasara reversing station and in olden days served to command and control the Thal Pass. Its fortifications were repaired and strengthened by the Moghals and the fort was manned almost until the first quarter of the nineteenth century. The fort-walls which are built of stone and mortar are eight feet (2·438 metres) broad, vary in height from six (1·828 metres) to ten feet (3·048), and run around for a kilometre and a half. Within the walls can be seen the ruined foundations of a large and small house.

BALLALGAD FORT

Ballalgad fort situated in the village of Achhad and lying about 40 kilometres from Dahanu was a fort of strategic importance on the old Dahanu-Umbargaon road during the rule of the Bimb Rajas of Mahim. It crowns the top of a hill about 200 feet (60·960 metres) high and is closely surrounded with forests in Talasari tahsil. It is a very small place measuring scarcely 80 feet (24·384 metres). The works including the parapet are about fifteen feet (4·572 metres) high and seven (2·134 metres) thick. Almost the entire area was formerly occupied with thatched buildings and a reservoir of putrid water. In

1862 the fort was in utter ruins with no water. Even the remains of the buildings could not be seen now.

BASSEIN (VASAI)

Bassein or Vasai that is the settlement located in 19°20' north latitude and 72°51' east longitude on the western coast about 48 kilometres to the north of Bombay on the right or the north bank of the Thane creek is a municipal town where the municipality was established as early as in 1864. It is the headquarters of the taluka bearing the same name and covers an area of eight square kilometres and has population of 30,594 souls as per the Census of 1971. A good metalled road about seven kilometres long leads to Vasai Road railway station on the Western Railway. The Portuguese ruins, which are nearly hid by palm groves and brushwood, stand about fifteen feet (4.572 metres) above high water level on a low flat plot of land, the south-west point of the rich and well-wooded tract, which, being cut off from the mainland by the Gokhivra or Sopara creek, was formerly known as Vasai island. Off Vasai fort, about 100 yards (91.440 metres) from the shore, is a dangerous rock which is visible only at low tide.

Located at an altitude of seven metres the town gets an average annual rainfall of 1,977.5 mm. the maximum and the minimum temperatures being 32.4° C and 15.3° C, respectively. The total length of roads in the town admeasures 31.34 kilometres, of which a length of 1.73 kilometres is of *kutchha* variety. The town is served with open surface drainage and the night-soil is disposed of with the aid of wheelbarrows. Wells form the main source of water-supply to the town population. The town has been supplied with electricity and as per the Census of 1971 there were 2,471 domestic connections and 730 road lighting points besides 92 industrial and 554 commercial connections. Medical facilities to the town population are provided by seven hospitals, a family planning centre and seventeen dispensaries besides a number of private medical practitioners. Primary schools, twelve in number, six middle schools, five high schools, two other vocational training institutes and four other institutes cater to the educational needs of the town populace. Recreation facilities to the town population are provided by three cinema theatres, three auditoria and two public libraries.

History : As Vasai lies only six miles (9.60 kilometres) south of Sopara it can hardly have been a place of consequence so long as Sopara (A. D. 1100) remained a centre of trade. A doubtful reference makes Vasai the head of a district under the Devagiri Yadavas (1184-1318). There is no certain notice till 1507, when Mahmud Begada of Gujarat (1459-1511) is said to have effected his designs against the

towns of Vasai and Bombay. A few years later Barbosa (1514) described it under the name Baxay, as a town of Moors and Gentiles, a good sea-port belonging to the king of Gujarat. Much merchandise was exchanged, and there was a great movement of shipping from all parts and many boats came from Malabar laden with arecas, cocoa and spices. In 1526 the Portuguese established a factory at Vasai and in 1529 and again in 1531, a revenge for the hostility of the Gujarat kings, laid waste the Vasai coast. In 1532, to put a stop to these raids and prevent the Portuguese from spreading further north, Shah ordered Malik Tokan, Governor of Diu to fortify Vasai. A citadel was built, both the creek and the sea sides strengthened with ramparts surrounded by a ditch full of salt water, and the whole was garrisoned by a force of 15,000 cavalry and infantry. Against this new fort Nuno da Cunha, the Portuguese General, advanced with a fleet of 150 sail manned by 4,000 men, half European, half Goans. Seeing their strength Malik Tokan made overtures for peace. But Da Cunha's terms were so hard that he was forced to refuse them. On this the Portuguese landed a little to the north of the citadel, and the vanguard, led by Diogo de Sylveira and Manuel de Macedo, scaled the ramparts, and, in spite of their small number, dashed on the enemy and put them to flight. The Muhammedans fled leaving large stores of provisions and ammunition, and the Portuguese secured the island with loss of only two persons of mark and a few soldiers. On account of its nearness to their new fort of Chaul, and because they could ill-spare a garrison, the Portuguese razed the citadel to the ground, and retired to Goa with 400 captured pieces of artillery.

About this time Sultan Bahadur of Gujarat, proud of his success in the Deccan and in Malwa, brought on himself the wrath of the Emperor Humayun. Both parties were anxious to gain the Portuguese as allies. With the object Bahadur, in 1533, agreed to cede Vasai and its dependencies to the Portuguese, gave them the right of levying duties on the Red Sea trade, and arranged that his vessels should call at Vasai and take a Portuguese passport. In the following year the Emperor tried to tempt the Portuguese to an alliance. But they continued firm friends to the king of Gujarat. and in reward were allowed to build a fortress at Diu. The Portuguese established a factory at Vasai but did so little to strengthen it, that in 1536 on the advance of a body of Moghals the commandant thought of abandoning the place. This was opposed by Antonio Galvao, and the Moghals, finding the garrison ready to resist, withdrew without firing a shot. Shortly after Nuno da Cunha, the Portuguese Viceroy arrived, and dug the foundations of a new citadel, honouring Galvao by asking him to lay the corner-stone of the fort. About the same time certain Musalman mosques were pulled down and in their place a cathedral of St. Joseph

was built. In 1539 Vasai was besieged by a Gujarat force but the attack was repulsed. Towards the close of the century (1583) it is mentioned as one of the places of most trade in corn and rice on the coast. About the same time (1585) it is said to have trade in rice, corn and timber for ship-building, but to be a filthy place compared with Daman. Abul Fazl (1586) calls it Bussy, a city and an emporium like Daman, Sanjan, Mahim and Tarapur, all five of them being in the possession of the Europeans through the negligence of the Moghal officers. Shortly after (1590) new fortifications were begun and finished about the close of the century. They are described as a strong stone-wall with eleven bastions mounting ninety pieces of artillery twenty-seven of the bronze, and seventy mortars seven of them bronze. The fort was defended by twentyone gun-boats, each of them carrying from sixteen to eighteen guns. Vasai though never too busy a trade centre as Chaul, was famous for its ship-building and had the advantage of being the headquarters of a rich tract of country, held by large Portuguese proprietors, whose wealth and the retinue and the court of the Captain of the North greatly enriched the city. The space within the walls was kept entirely for the higher class of Portuguese who tolerated no artisan or native among them. With straight streets, large squares, stately two-storeyed dwellings graced with covered balconies and large windows, and many rich and magnificent churches Vasai was next to Goa, the largest and richest of the Portuguese settlements. Under the General of the North, it was governed by a Captain, with an establishment of sixteen messengers, four torch-bearers, and three water and one umbrella carriers. With him, at least in the seventeenth century, certain of the chief townsmen seem to have been associated as aldermen, *vereadores*, whom the governor called every morning and consulted all standing, 'the Governor though gouty not being allowed a chair.' Next to the Captain came the factor on £ 43 (2,00,000 *reis*) a year, with two clerks, two torch-bearers, and two messengers. Order was kept by a constable of the fort on £ 8-6 s. (38,920 *reis*) a year, with twelve bombardiers each paid is 1 s. (3 *tangas*) a month; a chief constable, *thanadar*, on £ 43 (2,00,000 *reis*) a year living outside on the walls in upper Vasai, *Bacain de Cima*, with twenty constables on 1 s. 6 d. (5 *tangas*) a month, four musketeers on 2 s. 3 d. (7 *tangas*), a sergeant, *naik*, on 1 s. 6 d. (2 *pardaos*), one private or *najar*. a clerk with a sergeant and four privates, a translator, a Prabhu, a cooper, and a boatswain. Justice was administered by a police magistrate, *meirinho*, on £ 21 10 s. (100,000 *reis*) with ten messengers; a judge, *ouvidor*, on £ 21 10 s. (1,00,000) with five messengers; and an appellate judge, *vedor*, a doctor of laws, who heard appeals from all the judges of the north coast. Of miscellaneous officers there was a sea bailiff, *alcaide do mar*, on £ 2 10 s. (12,000 *reis*); a customs storekeeper,

almoxarife dos almazens, on £ 2 8 s. (30, 000 *reis*) ; a king's advocate on £ 4 6 s. (20,000 *reis*) and administrator of inter-estates on £ 3 16 s., (18,000 *reis*) a chief of the night watch on £ 5 8 s. (25,200 *reis*) and a master builder on £ 3 16 s. (18,000 *reis*).

In the beginning of the seventeenth century (1607) Vasai was a great place for ship-building and had a large trade in timber and building stone, which was as fine and hard as granite, and was used in all the Goa churches and palaces. In 1612 it was besieged by the Musalmans but apparently without success.

In 1618 Vasai suffered from a succession of disasters. First it was stricken by a terrible disease which few escaped though most recovered. All the Jesuits fathers at the college sickened, but only one father, Emanuel Acosts the Superior of the College died. Before his death he foretold that the city was about to be visited with a grievous punishment. Scarcely was he dead (May 15) when the sky clouded, thunder burst, and a mighty wind rose. Towards nightfall a whirlwind raised the waves so high that the people, half dead from fear, thought that their city would be swallowed up. Many provision boats, which were lying at anchor off the shore, were dashed to pieces. In the city and in the villages, houses were thrown down or made unfit to live in. The monasteries and convents of the Franciscans and Augustinians were utterly ruined. The three largest churches in the city and both the house and the church of the Jesuits were unroofed and gaped in clefts almost past repair. Nothing was more hideous than the destruction of the palm groves. Thousands of palms were torn out by the roots, and some the wind lifted through the air like feathers and carried great distances. The whole was like the ruin at the end of all things.

This storm was followed by so complete a failure of rain that, in a few months there was so grave a scarcity that children were openly sold by their parents to Musalman brokers. The practice was stopped by the Jesuits, partly by saving from their own scanty allowances and partly by gifts from the rich. When the fear of famine was still pressing, orders were issued that all should meet in the church of the Jesuits for prayer. One of the fathers so reproved the people for their sins that they threw themselves on the ground and filled the church with their groans. Their prayers were not unheard. The sky was soon covered with clouds, and next day rain fell so freely that the withered crops revived.

The European travellers of the seventeenth century described Vasai as a handsome well-fortified town with a convenient harbour, in a country growing much rice, pulse, and other grains, oil and cocoanuts. The city-wall was of stone three miles round with three gates two main gateways, one to the east, the other to the west and a smaller portal to the south, and eight bastions, some of them unfinished. On

the south or sea side, where there was little risk of an attack there was only a single wall. The garrison was (1634) 2,400 strong, 400 Europeans, 200 native Christians and 1,800 others. The city was set apart for the better class of Christians, neither craftsmen nor Hindus being allowed to live within the walls. It had wide straight streets and good buildings round a great square or market. The nobles lived in stately mansions, and there were six churches, four convents, and two colleges, one belonging to the Franciscans, the other to the Jesuits. The Jesuit college had five square cloisters with cells on two sides, a spacious refectory, a goodly church, and a fine library of commentaries and works on history and morals. The hospitality of these monasteries was famous, and made public places of entertainment unnecessary.

In the decay of Portuguese power towards the close of the seventeenth century Vasai suffered considerably. In 1674, 600 Arab pirates from Maskat landed at Vasai and, unopposed by the panic-struck garrison, plundered all the churches outside of the walls, refraining from no cruelty or violation. In the same year Moro Pandit established himself in Kalyan, and forced the Portuguese to pay him one fourth of the Vasai revenue. Two years later (1676), Shivaji advanced near Vasai, and, in spite of some slender hostility, fortified a place called Sibon (probably Saiwan), and in 1690 the Marathas, though unsuccessfully, invested Vasai. The city which had for some time been suffering from the dishonesty of its governors, the immorality of its upper classes, the interference of the clergy, and the ill-feeling shown to unconverted population was about 1690 stricken by a pestilential fever or plague, 'exactly like a bubo' which, continued at intervals for several years, robbed the city of about one-third of its people. In the beginning of the eighteenth century the population was returned at 60,499 souls, of whom 58,131 were native Christians and 2,368 Europeans. About the same time it is described as a place of small trade and a harbour for small vessels. According to Hamilton most of its riches lay buried in the hands of lazy country gentlemen, who loitered their days in ease, luxury and pride, without the least sense of their country's ruin. In 1728 a Portuguese officer, sent from Goa to examine the fortifications, found most of the outposts in a wretched state; the fort and stockade ill placed and in bad repair; the garrison short of their proper strength, and the few soldiers untaught and undrilled, useless except as robbers.

Round the city thus weakened and decayed the Marathas were gradually closing. In 1738 they seized the small fort of Arnala to the north of Vasai and soon after, by occupying the islands of Varsova and Dharavi and the creeks between Vasai and the mainland they completely isolated the city. Goa, distressed by the Marathas, could send no help, and the English at Bombay, for years annoyed by the

hostility and treachery of the Jesuits of Bandra, refused assistance. On the 17th February 1739 the siege of Vasai was begun, and, under Chimaji Appa, Bajirav's brother, was pressed with a skill, courage and perseverance which no other Maratha besieging force has ever shown. In spite of the loss of their commander, Sylveira de Menezes, the garrison defended themselves with the highest courage and constancy, driving back attacks, and by midnight sallies harassing the Maratha lines. Still the besiegers pressed closer, mine after mine was sprung, and in spite of a constant fire from hand grenades, musketry and mortars, the wall was breached under Sam Sebastian's tower, and, mounting on its ruins, the Marathas gained a position from which they could not be driven. The garrison, blockaded by Angre's fleet and short of food and of powder, with the flower of their officers and men dead or disabled, could hold out no longer. On the 4th May 1739 they offered to capitulate. The terms were honourable. The garrison, auxiliaries as well as regulars, were allowed to march out with the honours of war, and, to such of the people as wished to leave, eight days were given to gather their property. The loss of the Portuguese was about 800; that of the Marathas, in killed and wounded, about 12,000. Thus Vasai fell, as falls a stately tree never to rise. No fight had been more glorious to the Portuguese; in none since the days of Albuquerque had they earned more unsullied fame.

Under the Marathas Vasai with the name of Bajipur or Bajirav's city, continued a place of importance, the headquarters of the governor of the country from the Bankot river to Daman. To restore the Hindu population grants of rent free land were offered, and a tax was levied for the support of Brahmans who were brought to purify the Christians and make them fit to take their place in their old castes.

In 1767 the Dutch wished to establish a factory at Vasai. In 1774 the town was taken by the British but soon after was restored to the Marathas. Six years later (1780) Goddard, leading his army by land from Surat, arrived (November 13th) before Vasai. The fortress was a regular polygon without outworks, but so strong as to require regular approaches. On the 28th November the first battery of six guns and six mortars was opened at a distance of 900 yards, and on December 9th a second battery of nine heavy guns and at the same time a battery of twenty mortars were opened at 500 yards. On the 10th when a breach was nearly completed, a conditional offer of surrender was made but refused, and next morning the garrison surrendered at discretion. On the British side the loss was small. In 1783 under the terms of the treaty of Salbai March 1782, Vasai was restored to the Marathas. At the close of 1802 (December 17th) Bajirav Peshwa, flying from Yeshvantrav Holkar, reached Vasai from Suvarndurg on the Ratnagiri coast. Here he was met by Colonel

Close and Mr. Elphinstone, his Assistant, and on December 31st the Treaty of Vasai was concluded. To ensure the *Peshwa's* safety a field detachment was sent to Vasai and to strengthen the passage from the mainland Vasai island a considerable palm tree stockade was built at Sopara. The *Peshwa* stayed in Vasai till the end of April.

Under the terms of the treaty of Pune (13th June 1817), which was forced on the British by Bajirav's intrigues and failure to supply his contingent of troops, Vasai with the rest of the north Konkan passed to the British. In 1818, the distance between the main defences and the want of any sufficient ditch made the fort of no military value. The ramparts were over-grown with bushes and scarcely a house was habitable. A small detachment of troops was kept in it for some time. In 1824 it was described as a considerable place surrounded by a regular fortification of ramparts and bastions, but without a glacis which from the marshy state of the surrounding country was not much wanted. A small garrison was stationed in one of the gates, under an English conductor of ordnance, and the place was kept locked. Within, it was completely uninhabited. In 1825 Bishop Heber found it perfectly uninhabited, a melancholy display of ruined houses and churches covered with a rank growth of trees and brushwood. Bishop Heber describes the ruins as of mean architecture, but striking from their lofty proportions and from the singularity of Christian and European ruins in India. In 1830 an attempt was made to revive industry in Vasai by starting a sugar factory. A mill was built, but the scheme failed from the death of Mr. Lingard, the promoter. In 1837 Mr. Vaupell found Vasai the chief market town of a petty division with shops mostly hely by Gujarati Vanis and a few poor Musalmans. In 1838 Mrs. Postans described it as long forsaken with no inhabitants except a few fishermen and hunters. Since 1838 Vasai fort has remained almost deserted. In 1834 a travellers' bungalow was built at a cost of £ 167 (Rs. 1,672), and in 1856 road was carried through the town to the landing place. In 1852 the ruined church of N. S. Da Vida was turned into a sugar factory and for a time the work and the workmen gave some life to the old town. But the factory did not pay, and was closed, and the old city within the fort again became desolate.

Facing the sea, the open space at the end of the street, to the left of the sea gate, is the great square or market. Round it are the remains of what were once fine buildings. One of the chief of these was the State House, where in 1675 "The Governor convocated the nobles every morning upon consultation, in which they all stood, a chair not being allowed the Governor though gouty, and where towards evening they met to game." The ruined doorway beyond the market belongs to the castle or round citadel. On either side of the door were two pillars of which only the Corinthian capitals are left. Above are

a Maltese cross, a coat of arms, a sphere, and the date 1606. Inside of the gate the whole space is strewn with the oldest inscriptions in Vasai.

In 1860 the interior of the fort was leased for thirty years to Major Littlewood whose widow held the lease, her son cultivating the fields inside. The grant of this lease made the proper preservation of the ruins almost impossible. Except two openings for the landing place road, and one or two breaches along the sea face, the old city walls are in fair repair. They are about one and a half miles round, and in shape an irregular decagon, built of stone from thirty to thirty-five feet high, and, except on the west where they are as much as forty-five, not more than five feet thick. At each of the ten corners is a four-sided bastion, and in the whole circumference are three entrances, two main double gateways, and a postern. Of the two main gateways the Sea Gate, *Porta do Mar*, with massive teak doors cased with iron bars and spikes, is in good repair, but the woodwork of the Land Gate, *Port do Campo*, is broken. The postern behind the cloisters of the Franciscan church was thought unsafe, and was closed by the bastion of *Sam Sebastian*.

Within the walls are some fenced fields, and the lines of some of the old streets may be traced. With these exceptions the space is overgrown with palms and brushwood. On the land side are few signs of old buildings, but near the middle of the space are the ruins of the citadel or round central tower, and close together, towards the sea, are the remains of six churches and other religious buildings. All are overgrown with grass, wall trees, and thick hanging festoons of climbing plants. Of the absence of ruins on the land side two explanations may be offered, that as the part most likely to suffer from a land attack, it was never built but kept for the growth of grain, or that it was once peopled and fell to ruin during the ravages of the plague at the close of the seventeenth century.

Beginning from the seaside the first object of interest is the massive double sea gateway with its well-preserved teak and iron doors, on one of which, partly hid by an iron bar, were the words "The 20th November 1720". Within the gate, on the left, is a small temple of Hanuman renovated a few years before. On the same side, the building with massive high tower and tree-covered walls is the Cathedral, or *Matriz*, of *St. Joseph*. Over the door these words were cut in stone :

"In the year 1601, when the most illustrious Sr. Dom Frei Aleixo de Menezes was Archbishop Primate and the Revd. Pedro Galvao Pereira was vicar this Cathedral was rebuilt."

The towered front and the side walls with arched doorways and lancet windows are in fair repair, but the roof is gone and the steps

up the tower are decayed. On a black oblong tomb-stone in the chancel, to the right of the main altar, were these words :

“To this grave are transferred the bones of Pedro Galvao, a servant in the Lord, who managed and enlarged this temple. He died at Goa on the 19th March 1618.” The entire writing has now completely disappeared.

At the west end of the nave, a half-buried tomb bears the name “Antonio de Almeida de Sampaioe Su.” The present building seems to stand on the site of the church of St. Joseph, which was built in 1546 by the Viceroy Dom Joa de Castro under the orders of Dom Joao III of Portugal. A plain arched passage between the cathedral and a private house to the right is perhaps a relic of the dislike the wives of the Old Vasai nobles had, to be stared at on their way to church.

The first Captain who built this fortress was Garcia de Sa, by command of the Governor Nuno da Cunha in the year 1536.

These ruins are said to have been older than the Portuguese, and to have been the “place of residence of the Moors to whom it belonged”. Further back heaps of rubbish and one or two doored and windowed walls are all that remains of the palaces of the General of the North and of the Captain of Vasai. A little behind the gate of the round citadel, and near the end of the street that leads from the sea-gate along the walls, are the ruins of a very large building supposed to be the house of the Captain of the Court of Justice, but more probably the Church and Convent of the Augustinians.

The portico, which is approached by a flight of five deep steps, is supported by four pillars which divide the entrance into three arches leading into the vestibule. In the background are the Portuguese royal arms and some worn devices. Two inscribed stones have fallen, one from the architrave and the other from the tympanum. The writing on the architrave runs :

“This portal was built during the government of the Viceroy Dom Mguel de Noronha, Count of Linhares, and on it St. Francis Xavier was placed as patron of the city. The 10th May 1631.”

The writing on the tympanum runs :

“When Gaspar de Mellow de Miranda was Captain of the city, and Goncalo Coelho da Silva, Pero Ferreira, and Joao Boto Machado and other officers were aldermen, this portal, which took St. Xavier as its patron, was built in the year 1631.”

Next to the palace are the ruins of the factory, the residence of the factor who was second in rank to the Captain. Closeby are the ruins of a very large building apparently a granary.

Temples : Of Hindu temples mention must be made of those dedicated to Hanuman close to the sea gateway and other to Trivikram, both inside the temple and the one dedicated to Mahadev near the

church of pity. The temple of Mahadev, known as Nageshwar Mandir, was renovated thoroughly in March 1970 from public donations. On its side is the Vajreshwari Temple.

Two fairs are held in the town. One in honour of Rama is held on *Ramnavami*, i.e., *Chaitra Shuddha* 9 and is attended by about 2,500 persons. The other fair in honour of Hanuman is on *Hanuman Jayanti*, i.e., *Chaitra Shuddha* 15 when about 1,500 persons assemble. Besides a number of persons, local as well as from outside, visit the temple dedicated to Mahadeva on *Mahashivratri* day.

Churches : There are six modern Catholic churches in and near Vasai. The church of Our Blessed Lady of Mercy was built by private subscriptions and measures ninety-five feet (28.956 metres) long by fifteen (4.572 metres) broad and thirteen (3.96 metres) high. The Dhulia church, is dedicated to Our Blessed Lady of Remedies. It was built in 1821 at a cost of £1,860 (Rs. 18,600), of which £1,800 (Rs. 18,000) were collected by private subscriptions and £60 (Rs. 600) were granted by the Government. It measures 108 feet (32.918 metres) long by thirty-three (10.058 metres) broad and twenty-three (7.010 metres) high. The Manikpur church, 6.4 kilometres north-east of Vasai, is dedicated to St. Michael, the Archangel. It was re-built in 1851 at a cost of £1,500 (Rs. 15,000) which was raised by private subscriptions. It is in good order and measures 120 feet (36.576 metres) long by twenty-nine (8.839 metres) wide and thirty-six (10.972 metres) high. The Sandore church, 4.8 kilometres north of Vasai is dedicated to St. Thomas the Apostle. The side walls were built in the sixteenth century, the chapel in 1838, and the frontispiece in 1858. The chapel measures twenty-five feet (7.620 metres) long by twenty (6.096 metres) broad and twenty feet (6.096 metres) high, and the body of the church seventy-six feet (23.165 metres) long by thirty (9.144 metres) wide and twenty-five (7.62 metres) high. The Pali Church, about five kilometres east of Vasai, is dedicated to Our Blessed Lady, the Mother of God. It was built in 1840 at a cost of £1,500 (Rs. 15,000) and measures seventy-five feet (22.860 metres) long by twenty-three (7.010 metres) broad and eighteen (5.486 metres) high. The Papdi church, about three kilometres north-east of Vasai, is dedicated to Our Blessed Lady of Grace. It measures about 102 feet (31.089 metres) long by forty-five (13.716 metres) high and 37 (14.325 metres) broad, and was built in 1865 at a cost of £1,800 (Rs. 18,000) collected by private subscription.

BELAPUR FORT

Belapur fort, formerly an island of the same name, about a mile (1.61 kilometres) long and a little less than a mile broad, is located about ten kilometres west of Panvel. It was probably built by the

Portuguese and commanded the entrance to the Panvel river. Fortified with five bastions and equipped with twenty guns, eleven inside the fort and nine on the port, Belapur then constituted one of the strongest Portuguese forts in Salsette. In April 1737 after a tough fight, the Marathas conquered the place and upon their fall it passed under British control. It was here that the impostor, impersonating the deceased Bhau Saheb, was arrested by Manaji Angre and despatched to Pune.

Captain Dickinson described the fort in 1818 as about 400 feet (121·920 metres) from north to south, and divided midway, its breadth being about half its length. Near the northern point on a rising ground about seventy-five feet (22·800 metres) high and approximately 800 feet (243·840 metres) from the river, were the ruined remnants of a battery, part of which supported the roof of an old guard-room. Nearer the mouth of the river on a somewhat lower point of land there were the remains of a similar battery supporting an old roof on either side of which were the fort guns. The fort works were in utter ruins except the northern gateway and two round towers on the southern face. The works including wretched parapets from two (0·609 metres) to four feet (1·219 metres) wide, were nowhere more than eight feet (2·434 metres) thick and in height varied from six (1·828 metres) to twenty (6·096 metres) feet. Violent rains in 1818 destroyed a part of the facing or revetment of the works. The interior of the fort showed nothing but ruins except a low hut and a low ruined well which dried up soon after the rains. Now the well contains good potable water. The harbour about fifty-five feet (16·764 metres) from the fort, was defended by a low wall running along the top of the river-bank. This wall had two towers, the better placed of which was about twenty feet (6·096 metres) high and from its height and capacity formed a little fort in itself. The battery above was excellent and roofed. Underneath the ground floor was a store-room of the same size. It was formerly used as a prison. The enclosure was entered by a gate and at one end there was a battery much like the other two, and like them commanded by the fort above. Very few of the old remains could be seen now.

It is now no longer an island fort because the surrounding creek is reclaimed and filled with earth. To the east of the fort a road leading to Uran is under construction. A good view of Prabalgad, Malanggad and Karnala as also the eastern suburbs of Bombay is obtained from the fort.

The fort also contains a temple dedicated to Govardhani Devi which was renovated in 1953. The temple is managed by a trust. The annual fair in honour of the Goddess is held in the month of *Ashvin*, which is attended by about two thousand people.

There are also other buildings at the foot of the fort. Besides there is a well-built well of 15'×15' (4·572 square metres) containing good water. There is one inscription in the inner side of the well on the west which dates as *Shake* 1732. There are a number of other wells in the fort, perhaps of later date.

Under the Portuguese, Belapur was one of the seven divisions subject to Vasai, the capital of the north. It included Panechana with thirty villages, Cairna with seventeen villages, and Sabeyo also with seventeen villages. In 1781 a British resident was stationed at Belapur and in 1817 (23rd June) it was taken charge of by Captain Charles Gray.

BHAVANGAD FORT

Bhavangad fort, near the village of Khatali 6·4 kilometres south of Kelve Mahim, is a ruined stronghold measuring 188 feet (57·302 metres) long and seventy feet (21·336 metres) broad. It is over-grown with mango, jack and cashew trees, and has a large rock-cut hollow for storing grain and a cistern for water-supply. In 1862 it had water and supplies, but the walls were so ruined that they added nothing to the natural strength of the place.

BHAYNDAR

A railway station on the suburban tract of the Western Railway from Churchgate to Virar, Bhayndar is a non-municipal town in Thane tahsil under the functional category of industry as per the Census of 1971. The town covers an area of 24·45 square kilometres and has, according to the Census of 1971, a total population of 10,598 souls. The town is divided in eight wards with fifteen blocks.

Located at an altitude of 8·0 metres, the town gets an average annual rainfall of 2477·5 mm., the maximum and minimum temperatures being 37·0°C and 20·0°C, respectively. The total length of roads in the town admeasures 2·34 kilometres, the entire length being of *kutch* type. The town is served by open-surface drainage, night-soil being removed by head-loads. The town gets protected water-supply through taps to the extent of 1,80,000 litres. The town has been supplied with electricity and, as per the Census of 1971, there were in the town 400 domestic connections, 100 industrial connections, fifty commercial connections and 86 road-lighting points.

Medical facilities to the town population are provided by a dispensary, a maternity hospital and a family planning centre besides the private medical practitioners. Two primary schools, one secondary

school and one other institution cater to the educational needs of the town populace. Three public libraries are located in the town.

Located in the town are one bank and one agricultural credit society. The town is the centre for the manufacture of plastic foot-ware and household articles, steel furniture and salt.

BHIVANDI

Bhivandi, located in $19^{\circ}15'$ north latitude and $73^{\circ}00'$ east longitude, is the head-quarters of the taluka bearing the same name. The town covers an area of 4.12 square kilometres and has, as per the Census of 1971, a total population of 79,576 souls. It lies between the Kamvari creek and the Agra road. It is divided into two chief portions, each forming a separate survey village, Bhiwandi proper and Nizampur, which may be roughly said to lie, the former to the west and the latter to the east of the Lendi creek which meets the Kamvari creek. The Kamvari is tidal for about a kilometre and a half above the town where a dam was built in 1845-46 by Kashibai Garboli of Vasai at a cost of from £ 500 to £ 600 (Rs. 5,000 to Rs. 6,000). After running westward for eleven or thirteen kilometres, the creek joins the large Vasai and Thane creek at Kerne Deve.

Located at an altitude of 15.5 metres, the town gets an average annual rainfall to the extent of 2,578.0 mm, the maximum and minimum temperatures being 34.0°C and 25.0°C , respectively. The town is located at a distance of 51 kilometres from Bombay, the State head-quarters and 16 kilometres from Thane, the district head-quarters. Kalyan is the nearest railway station and is located at a distance of ten kilometres. The town is connected with Thane and Kalyan by metalled roads and a number of State transport buses ply between these towns and Bhivandi, at regular intervals. The town is located on the Bombay-Agra road and as such all the traffic toward that direction goes through Bhiwandi and it has become a sort of a junction of State transport routes.

The total length of roads in the town measures 32.80 kilometres, the entire length being *pucca* roads. The town is served by open-surface drainage with night-soil disposed of with the help of hand-carts and tractor and trolley. The town gets protected water-supply through a service reservoir with a capacity of 73,20,000 litres. Fire-fighting services are also available in the town. The town has been supplied with electricity and there were 5,496 domestic connections and 1,167 road-lighting points besides 6,362 industrial connections and 1,736 commercial and 511 other connections. The high number of industrial connections clearly brings out the industrial potential of the town. The town is famous for both hand-looms and power-looms which are there

in existence in great numbers. Yarn, wood and paddy are the three most important commodities imported in the town while the three most important commodities exported from the town are power-looms, rice and rice mill machinery and other machinery. The three most important commodities manufactured in the town are carts, rice and powerloom cloth. There are six banks and two agricultural credit societies in the town, as per the Census of 1971.

The medical facilities to the town population are provided by twenty-five dispensaries, three maternity hospitals and two family planning centres besides a number of private medical practitioners including specialists and consultants. Primary schools numbering eighteen, four high schools, two type-writing institutions, two polytechnics, one college of Arts, Science and Commerce and four other institutions cater to the educational needs of the town populace. Recreational facilities are provided by two cinema theatres, one auditorium and five public libraries.

During the last century Bhivandi was an important centre of trade and the chief industries were weaving, rice-cleaning, and oil-making, and the chief articles of trade were rice, dried fish, cloth, grass and wood as had been mentioned in the old *Thana District Gazetteer* published in 1882. The said *Gazetteer* has given a very interesting information about Bhivandi trade, which is reproduced below :

"In 1860 the value of the Bhiwandi trade was estimated at from £ 300,000 to £ 350,000 (Rs. 30,00,000—Rs. 35,00,000). Of this about £ 250,000 (Rs. 25,00,000) went to Bombay, from £ 50,000 to £ 60,000 (Rs. 5,00,000—Rs. 6,00,000) to the Deccan, and £ 30,000 to £ 40,000 (Rs. 3,00,000—Rs. 4,00,000) were disposed of in the town and neighbouring villages. Besides local supplies of rice, wood, and salt worth from £ 100,000 to £ 110,000 (Rs. 10,00,000—Rs. 11,00,000). The chief articles of traffic were oil, linseed and cotton from central India and the Deccan. The through traffic has almost entirely passed to the railway and much of the local trade now finds its way to Bombay by Kalyan.

Bhivandi creek is narrow and shallow in parts. In ordinary tides no boats of more than twenty tons and in spring tides of more than forty-two tons can reach the town. The sea trade returns for the five years ending 1878-79 show average exports worth £ 1,11,608 (Rs. 11,16,080) and imports worth £ 54,280 (Rs. 5,42,800). Exports varied from £ 101,255 (Rs. 10,12,550) in 1877-78 to £ 1,08,840 (Rs. 10,88,400) in 1878-79 and imports from £ 47,574 (Rs. 4,75,740) in 1874-75 to £ 61,929 (Rs. 6,19,90) in 1878-79.

Its position on a navigable stream on the direct line of traffic through the Thal Pass must have made Bhiwandi an early centre of trade. The

word is perhaps preserved in Binda, Ptolemy's (150) name for the Bassein creek.

In 1542, in a treaty with the Portuguese the rulers of Ahmadnagar engaged not to allow pirates to pass by Kalyan and Bhiwandi to Vasai. In 1570 Bhiwandi is mentioned as a place of trade with Gujarat. In 1636 the province of Kalyan-Bhiwandi was transferred, under the terms of the treaty with the Moghals to Bijapur. In 1690 Matabar Khan, the Moghal commander of Aurangzeb whose fine tomb stands on the edge of the Shenale lake at Kalyan, is mentioned as having ravaged the Portuguese territories, and in 1750, under the name Bimbri, Bhiwandi is noticed as the head of 463 villages with a revenue of £ 1,01,838 (Rs. 10,18,300). In 1789, according to Marathi records, the Bhiwandi sub-division yielded an estimated yearly revenue of £ 24,177 (Rs. 2,41,770). From 1817 when it passed into British hands until 1835, a native infantry regiment was kept at Bhiwandi and from 1836 until the reduction of the Veteran Battalion in 1860, a considerable detachment of that corps under the command of a European officer was stationed at Bhiwandi. The military camp lay to the east of the town on a somewhat rising ground which is still locally known as the 'camp'."

Now the place is known as the "Khan" and the open ground is occupied by the *zopadpattis*.

The old military dispensary is now the subordinate judge's court. On the camping ground there are two European tombs and several more on the margin of the big reservoir to the south of the road that leads into the town. All are in good repair, but the inscriptions are much worn. These two tombs can't be seen easily as these are covered by roofs of huts. The other tombs are untraceable around the lake as all the surrounding area of the lake is covered by huts. The water is used for washing. The chief Musalman remains are a tomb in honour of Sheikh Hussain Kadri, a minister of king Ali Adilshah of Bijapur, who died in 1665 (1076 A.H.). The tomb was completed in 1711 (1125 A.H.) by Sheikh Hussain's daughter's grandson Syed Kutb-ud-din Sajjadah Nashin. Beside the tomb is a fine reservoir, and a short way south a small but deep well of good water. There are four chief mosques, Jama, Kedgya, Dongarkar, and Bhusarmal all of the Sunni sect. Besides these there are a Meman mosque and two Momin mosques, one for the Sunnis and one for the Shias. None of these mosques have any Government allowance. Besides the tomb of Mokri, a Musalman saint, there is a large *dargah* of Imamshah Ali, with a yearly fair, *urus*, in May-June (*Vaishakh*) attended by about a thousand people. Besides there are a number of Hindu temples.

The temple dedicated to Varhaldevi is an ancient one and is located near the Varhala tank that supplies water to the town. The most

ancient temple in Bhivandi is the one dedicated to Bhimeshwar located in Brahman Ali.

The fair, or the *urus* as it is called locally, is held at Gauripada village on the border of Bhivandi town in honour of the saint Baba Diwan Sahab *alias* Sheikh Hussain Kadri. The *urus* starts from the 9th day of the Muslim month *Zilqaad* and ends on the 20th day of the same month. The important days of the fair are 13th, 14th and 15th of *Zilqaad*. The principal day is 13th of *Zilqaad*. The total congregation is about sixty thousand of which fifty thousand alone attend the *urus* on the 13th day of *Zilqaad*.

The *dargah* of the saint Pir Shah Hussain Sahab, commonly known as Baba Diwan Sahab, is situated at the boundary of village Gauripada. The residential houses of Bhivandi are situated near the *dargah* which is at a distance of about 3 km. to the south of the bus-stand at Bhiwandi and one can visit the place in a *tonga* or on foot.

A gate on the outskirts of Bhivandi Municipal limits leads to the place of the fair. Near the gate there is a tomb with a "minar" of Baba Kotwal Sahab *alias* Baba Marfata. He was the *kotwal* or knight of the army of Baba Diwan Sahab. The *dargah* is built on a raised platform three feet in height. The front portion of the platform is used as a court-yard and has a pole at the centre for hoisting a flag. The entire platform has a fencing of iron bars with iron pillars three feet in height. In the court-yard at the north, there is a tomb of the religious teacher of the saint. At a distance of about 25 steps from the platform there is a well called "*Dudh-Bawadi*" which is said to have been built by the grand-son of the saint's daughter. There are some inscriptions in Arabic and in Devanagari scripts on the stone-walls of the well.

At the west of the *dargah* and adjacent to the platform, there is a lake. The main building of the *dargah* faces the east and is at the centre of the platform. It has three arches resting on four pillars on the east and on the west. The central arch at the west is filled to form a wall. The south and north sides have four arches on five pillars each. The platform is extended towards the south and the tombs of the disciples of the Baba are to be found there. There are three "minars" each, on the arches at eastern and western sides and four minars each on the southern arches. The ante-chamber and the shrine are built leaving a path of six feet all around. The ante-chamber has a door from the east and one can enter the shrine from the ante-chamber through its archway. The shrine admeasures 15'×15' and is about twenty feet high. The flooring of the ante-chamber, shrine and the 6' wide path all round is made of marble stones. There are three doors to the shrine, one each towards the south, the west and the north side. On each door-frame and on the archway at the east, there are

inscriptions on stones in Persian script, commemorating the builder's name with the year of construction of the *Dargah*. There is a dome on the shrine surmounted by a brass pinnacle. The *dargah* is constructed in stone with massive walls of stone and mortar. The walls and roofs are plastered with lime. The saint died in 1665 A.D. and the *dargah* was built by his daughter's grand-son, Kutub-ud-din Sajjadah Nashin, in 1711 A. D.

In the shrine there are four tombs. The main tomb of the saint Baba Diwan Saheb, measures 6'×2' and is three feet high. On the east of this tomb, there are tombs of his daughter Nurjahan, his son-in-law Sayyad Kutub-ud-din or Syed Kutubuddin Mohomad Khan Bahadur, and his daughter's grandson in that order. All the tombs (*majhars*) except that of the saint, which is of black stone, are made of lime. On the top of the *majhar* of the Saint his name is engraved. All the tombs are covered with *galaf*.

The tombs are worshipped daily, twice at 5-30 a.m. and 6-30 p.m. The worship comprises "Fatihah Bolana", i.e., reciting of holy hymns from *Koran* and waving of incense-sticks.

The saint is supposed to be capable of showering blessings. People, therefore, make promises in return for getting a child, getting bodily and mental relief, or for prosperity in business, etc. After the fulfilment of their desires they offer *galaf*, incense-sticks, etc. Some distribute sweets while others give a feast of mutton, etc. Some pilgrims offer tiny horses or buffaloes or cradles made of silver according to the vows made by them.

The annual *urus* of the saint is celebrated with festivity in the month of *Zilqaad*. The pilgrims are drawn from all parts of northern India and a few from south India. The majority of them are Muslims. They are accommodated in the *dharmashala* or in hotels and boarding houses in the town. Government officials concerned visit the place during the *urus* to supervise the sanitation, water-supply arrangements, etc.

The *dargah* is white-washed, coloured and decorated with coloured bulbs etc., before the commencement of the *urus*. The rituals and other programmes at the *urus* are as under :—

8th of Zilqaad : The *dargah* and the *Majhars* or tombs are washed with rose-water, scents, etc. The tombs are then covered with *galaf*. Incense-sticks are waved and holy verses from the *Koran* are recited.

9th of Zilqaad : At Bhivandi, at a distance of about one mile from the *dargah*, there is a house named Diwan Mahal. This Diwan Mahal is said to have been built by one Syed Hakkumiya Sarjade for the residence of the saint. A flag of green colour is brought from Diwan Mahal to the *dargah* in procession. The procession is accompanied by a band of musicians and some *Mankaris*. The

pilgrims at the *dargah* give grand reception to the procession which is called "Milad Sharif". The flag is then hoisted on the pole in the court-yard of the *dargah*.

There are no programmes from 10th to 12th day of *Zilqaad*.

13th of Zilqaad : At 3 a.m. a procession of "Sandal" attended by a large number of devotees including *Mankaris* starts from Diwan Mahal for the *dargah*. There are four "Sandals" and each is held by four persons at its four corners. When the procession arrives at the *dargah*, the tombs are unrobed and the "Sandals" or *galafs* are put on each of the four tombs. Scents and scented water are sprinkled on them. Nets of flowers are then placed on the "Sandals" which are put on the tombs. Burning incense-sticks are waved and holy hymns from *Koran* are recited. On this day alms and sweets are distributed to the poor. The "Maulud" ceremony, i.e. reciting of hymns from *Koran*, is held for four days from 13th to 16th day of *Zilqaad*. Fire-works are also displayed on the 13th to 15th days of *Zilqaad*.

14th of Zilqaad : A procession of "Sandal" or *galaf* is taken out on this day, which starts from the tomb of Baba Kotwal and goes round the nearby field.

15th of Zilqaad : A "*galaf*" or Sandal procession as described on 14th of *Zilqaad* is taken out. There is no other programme except a feast which is given to pilgrims who attend the *urus*.

16th of Zilqaad : A "*gala*" or Sandal procession starts from the *dargah* and takes a round at the place of the *urus*. The procession ends at the tomb of the religious teacher of the saint and the *galaf* taken in procession is placed on his tomb.

17th to 19th of Zilqaad : No programmes are held.

20th of Zilqaad : The *Majhars* or tombs along with the *dargah* are washed with rose-water and scents. Other programmes, as stated on the 9th day of *Zilqaad*, are held on this day.

Besides this annual *urus*, the death anniversary of the saint is celebrated on the 21st day of Muslim month *Jumadi-Al-Awwal*. On this day a *galaf* is placed on the tomb and a feast is given.

The programme of "Maulud" is held on six days during a year, viz., four days in the *urus*, the day of hoisting the flag, i.e., 9th day of *Zilqaad* and on the death anniversary of the saint. The favourite day of the saint is Thursday on which day people gather to revere him. Friday is a day of public prayers.

Sanitary arrangements at the *urus* are looked after by the Trustees under the guidance and supervision of the Municipal authorities. Anti-cholera inoculations are administered and sanitary and precautionary measures are taken. The water from the *Dudh Bawadi* is stored in the two tanks with the help of a pump. The water from the tank behind the *dargah* is used for bathing and washing purposes.

Plots are leased out to the traders from Bhivandi and nearby places such as Kalyan, Thane, etc., who open their stalls at the *urus*. About 150 to 200 such stalls are installed during the *urus* where coconuts, flowers, sweets, toys, etc., are sold in large quantity. The estimated sale during the *urus* is over one lakh of rupees.

The affairs of the *dargah* and the *urus* are managed by a Dargah Trust which was formed, about 45 to 50 years back.

It is said that the saint, a resident of Baghdad, belonged to Kadri family and was named Sheikh Hussain Kadri. He is recognised as Pir Shah Hussain Saheb in history. He left Baghdad in an unconscious state and arrived at Bijapur where he found that the king of Bijapur, Adil Badashah, had expired. He became the minister and managed the affairs of the territory for about seventeen years. When the son of the king came of age, the pious saint handed over the kingdom to him and retired to Bhivandi to lead a religious life. At that time a Hindu king named Bhim, was driven out by the Portuguese. The saint with his men helped king Bhim in recovering his lost territory from the Portuguese.

The town is named "Bhimadi Islamabad" after him.

The king donated the land and the buildings to the saint for the help rendered.

Bhivandi has an animal-house, or Panjrapol, a branch of the Bombay home. The yearly number of animals, chiefly cattle and ponies, varies from 300 to 1,200, and the yearly cost is about £ 3,600 (Rs. 36,000). Healthy cattle and horses are used for light work, chiefly bringing grass from lands near Bhivandi which the managers of the home have rented. The feeble and worn are fed on hay and grass, and the sick, who are treated by a native farrier, get molasses and clarified butter. The home is managed by a superintendent, or *daroga*, and from fifty to seventy-five servants. Almost the whole cost is borne by Gujarat Hindu merchants of Bombay.

A copper-plate found in 1881 with the headman of Bhare, about ten miles north of Bhivandi, records the grant by Aparajita Shilahara in A.D. 997 (S. 919) of the village of Bhadan, the modern Bhadane ten miles north-east of Bhivandi. Other places mentioned in the grant are the village of Padigah, the modern Padgha on the Agra road two miles north of Bhadane, and the river Kumari, the modern Kumbhari, a little to the east of Padgha. The grant was made to meet the cost of the worship of Suryalonaditya, on the Raylavan coast, perhaps, as suggested by Mr. Mullock, a temple in the sacred village of Lonad about six miles south-west of Bhadane.

At Karoli about a mile and a half south-west of Bhivandi in wooded rice lands are the remains of a temple of the naked or Digambar

(literally air-clad) Jains. It is on a raised site in a field close to the road on the left. The remains are a heap of stones covered with grass and thorn-bushes. Several finely carved blocks are scattered about. One is the side post of a door, another in the field about thirty yards to the east is the centre stone of a domed ceiling with a well-carved lotus pendant, and by the road lies a broken capital. Many of the stones have little images of a Jain saint seated like a Buddha. It is not a Buddha because there is no shoulder-cloth ; it is not a white-clothed or Shvetambar Jain because there are no waist-cloth folds between the legs. The carving is clear and good, perhaps of the tenth or eleventh century. In Karoli pond a little to the east three flat clothes-beating slabs are said to have been carried away for house building within the last ten years. At Kambe, about a mile north-west of Bhivandi, the small ruined fort with two bastions, is one of a line of forts that guarded the border between Portuguese Bassein and Maratha Bhivandi. Besides at Kambe traces of these forts occur at the villages of Cave, Karbed, and Pai.

BHOOPATGAD FORT

Bhoopatgad fort standing atop a 700 feet (213·360 metres) high hill in Kurlod village in Mokhada tahsil is about twenty-five (40·234 kilometres) to thirty miles (48·280 kilometres) north of Mahuli and seven (11·365 kilometres) to eight miles (12·875 kilometres) south-west of Mokhada. It is two miles (3·219 kilometres) from the foot of the hill and commanded the Vada-Trimbak road. It is 1,500 feet (557·200 metres) long and 300 feet (91·440 metres) broad. The fort appears to be quite ancient and had much importance during the Shilahara times. In 1818 nothing remained of the fort except a parapet wall of loose stones along the south-east corner ; a gateway between two outstanding towers without parapet or breast-work which is now totally out of repair ; and on a rising ground on the hill-top a little tower from six (1·829 metres) to ten feet (3·048 metres) high and with a rampart about six and a half feet (3·355 metres) thick, of which very little remains now. Not far from the fort and close to the main road from Trimbak to Vada are memorial stones called *paliyas* or *virgals*. They seem to be of great age.

CHINCHANI

Chinchani standing on the north bank of the Chinchani-Tarapur creek about nine kilometres west of the Vangaon railway station on the Western Railway and about thirteen kilometres south of Dahanu, the head-quarters of the taluka in which it is located, is a large village

covering an area of 583-962 hectares with a population of 9,078 souls, as per the Census of 1971.

The educational facilities to the village population are provided by the primary schools conducted by the Zilla Parishad and a secondary school conducted by a private institution. Wells form the main source of water-supply for this electrified village. The village has a post and telegraph office. There is in the village a dispensary formerly known as Sakarbai Dispensary endowed by the late Shri Dinshaw Manekji Petit of Bombay who donated rupees ten thousand towards the building of the dispensary. The dispensary is now conducted by the Zilla Parishad. A maternity section has recently been opened in a new building attached to the earlier one.

Chinchani was a very old port and town, reference to which is found in a Nasik cave inscription of the first century. A municipality was established at Chinchani in 1866 but was abolished in 1874 since no commissioner fit to be trusted with the management of municipal offices could be found.

The village is acquiring its old status again due to the establishment of Bhabha Atomic Research Station and its Atomic Power Station nearby.

DAHANU

Dahanu, located in 19°58' north latitude and 72°45' east longitude, is a non-municipal town and the headquarters of the taluka bearing the same name located towards the north of the district. The town is located at a distance of 124 kilometres from Bombay, the State headquarters and 169 kilometres from Thane, the district head-quarters. It has a population of 9,637 as per the Census of 1971, and covers an area of 5.54 square kilometres. Situated at an altitude of five metres the town receives an average annual rainfall of 1,759 millimetres, the maximum and minimum temperatures being 37.7°C and 12.9°C. It is located at a distance of four kilometres from Dahanu Road railway station on the Western Railway with which it is connected by a tarred road on which a number of State Transport buses ply regularly. It is a port which was of repute since olden days.

The total length of roads in the town measures 3.62 kilometres, of which 2.22 kilometres are *kutchra* roads while 1.40 kilometres are *pucca* roads. It is served with box surface drains and night-soil is disposed of by head-loads. The town has been electrified. Medical facilities to the town population are provided by a hospital with 30 beds, a maternity centre with five beds and ten dispensaries. Four primary schools, one high school and one vocational training institute cater to the educational needs of the town populace. Recreation facilities are

provided by one cinema theatre and a public library. Edible oil, cloth and grocery are main commodities imported in the town while those exported from the town are fish and cement. Wooden toys, balloons and stainless steel utensils are manufactured in the town. Financial and credit facilities are provided by one bank, one agricultural credit society and one non-agricultural credit society. Wells form the main source of water-supply to the town population. The offices of the Tahsildar and the Block Development Officer, i.e., of Panchayat Samiti are located in the town. A Municipality was established at Dahanu in 1866 but was subsequently abolished in 1872 as the funds were not enough to carry out useful improvements. The post and telegraph office and the Government rest-house are also located in the town. Dahanu was a port of consequence since olden days and has been mentioned as a town in an inscription in the Sahastrarashmi caves near Nasik. The old *Thana District Gazetteer* mentions about the port of Dahanu as under :—

‘Off shore shoal grounds, nearly dry in parts, stretch from two to six miles to the west and about thirty miles north as far as Daman. Within the outer reefs, about four miles west of the fort, small coasting craft find anchorage in three or four fathoms. The creek can be entered at high water only.’

‘It is high water on full moon and change of the moon at 1 p.m. The tidal rise at springs is about 20 feet.¹ In 1634 the mouth of the river was crossed by a sand bank, dry at low tide and with from eight to nine feet (10·12 spans) draught at high water.²’

Dahanuka occurs in one of the Nasik cave inscriptions, as the name of a town and of a river on which Ushavadat, the son-in-law of Nahapana (A.D. 100), made a ferry. Dahanu is mentioned as passing from Gujarat to the Portuguese under the treaty of December, 1533. In 1582, the garrison was attacked by the Moghals, but defended itself successfully. In 1634 Dahanu is mentioned as celebrated for its image of Nossa Senhora des Augustias which had wrought many miracles. Ten paces from the shore was a round fortress with bastions about thirty-six feet high, including an upper story. It was well supplied with ammunition, and, besides an iron gun and a bronze six-pounder, had four falcons used for throwing two-pound stone balls. The garrison consisted of a captain with two Arab horses, several Portuguese soldiers, two corporals, and thirty messengers. There were four Portuguese and fifty native Christian families, well supplied with guns, lances, and swords. In 1670 Ogilby mentions Dahanu as a coastal town. Early in the eighteenth century (1720) it is described by Hamilton

¹ Taylor's Sailing Directory, 371.

² O Chron de Tis. II. 116

as of little account for trade. In 1731 it was taken by the Marathas under Chimaji Appa. It passed to the British in 1817 under the terms of the treaty of Poona. In 1826 it had 600 houses, seven shops and a reservoir.

The fort on the north bank of the Dahanu river at a little distance from its mouth is of cut stone and well built. In 1818 the works, which averaged about thirty feet high and ten feet thick, were in excellent order, defended by four casemated towers with ruined terraces. Most of the interior was occupied by old buildings all out of repair. There was not a single habitable dwelling within the fort, and a well totally ruined yielded a scanty supply of water. The fort gateway which was very strong and in good repair was covered by a low round wall which stretched from tower to tower. In 1862 it was described as a strong fortress overgrown with brushwood and with a ruined well.

DATIWARE

Also known as Dantivra, it is a village in Palghar taluka lying about sixteen kilometres to the south of Mahim. The village has a small ruined fort, probably built by the Portuguese. The village of Datiware covers an area of 2,123.387 hectares with a population of 4,152 souls, as per the Census of 1971. The educational needs of the village population are met by two primary schools and one high school conducted by a private institution. Wells and tanks are the main sources of water-supply. The village has a post office too. It is connected to Safale on the western railway by the State Transport buses which ply regularly between them.

The village has a small fort with a small bastion on the south of the village near the sea. The bastion has a diameter of fourteen to fifteen feet and a height of ten to twelve feet. It is used as a light house and a light is usually hung on a high post during the nights. The bastion must have a good height in the olden days but now much of it has given away.

Datiware was a port and had a sea customs office. The previous edition of the *Thana District Gazetteer* gives following details about imports and exports from Datiware for five years ending 1878-79 :—
 “ average exports worth £ 10,738 (Rs. 1,07,380) and average imports worth £ 831 (Rs. 8,310). Export varied from £ 7,651 (Rs. 76,510) in 1877-78 to £ 13,877 (Rs. 1,38,770) in 1875-76 and imports from £ 220 (Rs. 2,200) in 1875-76 to £ 1,635 (Rs. 16,350) in 1877-78 ”.

There is a large rest-house capable of accommodating more than 100 boarders. Now-a-days it is not much in use and the walls on the back have given way (it was constructed by one Ardeshir of Bombay).

DOMBIVLI

Dombivli, a municipal town in Kalyan tahsil, is located at a distance of twenty kilometres from Thane and six kilometres from Kalyan and is a railway station on the Central Railway. It is a growing town and its vicinity to Bombay and Thane and the availability of local train services from the place has given it the position of the suburb of Bombay. Many of those employed in Bombay find their residence in Dombivli. It is evident from the fact that its population which was 8,106 as per the 1951 Census rose to 18,407 as per the 1961 Census and further to 51,108 as per the 1971 Census. Many co-operative housing societies have sprung up in the town where house-building activity is seen in full swing.

The town covers an area of 2.33 square kilometres and is divided into 19 wards and 93 blocks. As per the Census of 1971 the number of occupied residential houses and households in the town was 11,697. The total length of roads in the town admeasures 23.97 kilometres, of which a length of 22.37 kilometres is of *pucca* variety. The town is served by open-surface drainage, night-soil being disposed of by tractors and trollies. The town gets protected water-supply through a service reservoir with a capacity of 27,00,000 litres. The town has been supplied with electricity and as per the Census of 1971 there were in the town 9,139 domestic connections and 526 road-lighting points.

Medical facilities to the town population are provided by two hospitals with 57 beds, three maternity hospitals, two nursing homes with 24 beds and 41 dispensaries. Nine primary schools, eight middle and secondary schools, an arts, commerce and science college, two short hand institutions, three typewriting institutions, four other vocational institutes and three other institutes provide educational facilities to the town population. Besides three cinema theatres, a public library as also a well-laid-out garden are also located in the town. Of the financial institutions there are in the town four banks and one non-agricultural credit society. As has been stated earlier, a big industrial complex has developed around Dombivli and it is a centre of the manufacture of many industrial consumers goods.

GANESHPURI

Hallowed by the residence of Svami Nityanand Maharaj, Ganeshpuri is a small township about seventy-five kilometres from Bombay and eighteen kilometres from Bhivandi. The township covers an area of 287.327 hectares and has a population of 1,760, as per the Census of 1971. This small township is equipped with nearly all the facilities and amenities such as electricity, telephones, water-supply, shops,

hotels, dispensary and sanatorium. A Government holiday camp is also located in the township.

Even before the place was hallowed by Svami Nityanand Maharaj it was famous for hot-water springs. The township is located on the bank of the Tansa and a number of hot-water springs could be noticed in the bed of the Tansa and the surrounding area. In front of the temple dedicated to Shri Bhimeshwar, there are four *kundas* (small ponds) which according to the local tradition are said to have been built about 800 years ago. Water collected in one of the *kundas* flows to the second, from there to the third and subsequently to the fourth from where it flows into the river. Water in the first *kunda* is very hot. Water is collected in these *kundas* at the rate of 35 litres per minute and is said to contain sulphur, phosphorus, silica, calcium, sodium, potash and sodium bicarbonate chloride. This water is attributed with qualities of curing skin diseases.

Bhimeshwar Temple : Ancient in appearance, the temple dedicated to Bhimeshwar has an entrance flanked by two niches holding the images of Hanuman to the left and of Dattatreya to the right of the temple. Just inside the entrance is a four-arched porch or canopy housing Shiva's bull or Nandi. Besides there are the images of Ganapati and Vishnu. There is also a well proportioned image of Parvati. The vestibule is descended by four steps and is approximately 10'×10' holding a *ling* coiled and shaded by a copper cobra. There are smaller niches in the wall for lighting lamps. Mahashivratri is celebrated in the temple with great rejoicing.

Sadguru Nityanand Maharaj Samadhi Mandir : Sadguru Shri Nityanand Maharaj attained *mahanirvan* on 8th August 1961. A temporary *samadhi* was constructed over the spot where his holy remains lie interned. Subsequently, a trust was also constituted on 14th April 1964 for looking after the *samadhi*, for propagating the philosophy and teachings of the Sadguru and for other connected objectives. The general consensus of the devotees of Sadguru Nityanand was towards constructing a structure symbolising the deep veneration and high regard in which the great saint was held by all the devotees.

Samadhi mandir is a modern structure designed and constructed in the traditional ancient manner. It has three entrances, the middle one being larger than the side ones. The floor is paved with marble slabs, the walls also being studded with marble upto the arch height. On either side there are four windows and a door each. The prayer hall in front measures 65'×45'. At the farther end of the hall is installed a bronze statue of the Maharaj over the *samadhi*. The total height of the pinnacle is about 82 feet from the base.

Behind the *samadhi*, to the west, is a shrine dedicated to Lord Krishna and constructed by the Svami Maharaj. The idol is in

a standing position leaning against a cow. Another shrine dedicated to Goddess Bhadrakali has also been constructed by the Svami Maharaj.

Another well-laid-out big building constructed to meet the growing needs of the *ashram* is the Annapurna Mandir with a dining hall accommodating about 800 persons at a time. It was constructed in pursuance of the Babas' desire that all the devotees who visited the *ashram* should be given *prasad*. Daily about 700 to 800 children are fed at the expense of the *ashram*. The system of *bal bhojan* providing food to children was started by the late Svami Maharaj himself.

Maha Shivaratri, *Guru Purnima*, *Svamiiji's* birthday and the *punya-tithi* of the Svami Maharaj are celebrated by the devotees with great spiritual fervour. On each of these occasions about 3 to 4 thousand people assemble to celebrate the sacred days. The *ashram* is decorated with flowers, fruits and festoons on all such occasions and the devotees pour in large numbers to perform *puja* and *arati* of the Guru. *Prasad* is served to one and all present. Besides, the principal days mentioned earlier, other festivals celebrated are *Gudhi Padva*, *Krishna Janmash-tami*, *Dasara* and *Divali*.

The administration of the *ashram* is entrusted to a board of Trustees and Council of Management with Svami Muktanand, at present, as the final authority in all matters. Cleanliness, purity of mind, mutual love and respect, and a bright outlook on life with yearning for truth are the guiding precepts of Svamiiji.

GORAKHGAD FORT

Gorakhgad, a sheer rock of about 400 feet (121·920 metres) high, stands out from the Sahyadris at the foot of the Aupa or Khopoli pass and is about nineteen kilometres south-east of Murbad and about three kilometres from Siddhagad or Sidgad. In 1818 it had two forts, an upper and a lower. After a difficult ascent of about 100 feet (30·480 metres), in places along the break of the precipice, stood a gateway with an underground spiral staircase behind it, now almost in total ruins. There was a second gateway at the top of this staircase and above some water cisterns and huts, the latter of which do not exist now. From this a second steep and dangerous ascent of about 100 feet (30·480 metres) ended in a narrow terrace which was about ten (3·048 metres) to fifteen feet (4·572 metres) wide, with some large cisterns and caves useful for stores and dwellings running under a knob of rock about 100 feet (30·480 metres) high. A very narrow and difficult staircase hewn out of the rock gave access to the top. In Captain Dickinson's opinion, this upper fort was safe against any native power and could scarcely be captured by surprise. In 1862 it was ruinous with scanty water and no supplies. Not far away is

Machhindragad, also an abrupt rock like Gorakhgad. These rocks are noticeable from the railway near Neral station.

The caves and cisterns noticed by Captain Dickinson are the remains of an early religious settlement. At different heights and at irregular distances there are many small groups of caves most of which are dwellings like many of the Kanheri excavations. They have verandas, seats and square hewn pillars. The water in the cisterns is cool and abundant. Even now the supply of water is plentiful and the fort like others in the Sahyadri ranges is trespassed by shepherds and hitchhikers.

GORHA

Gorha, also known as Gorch during the English rule, is a small village in Wada tahsil near the south spur of the Koj hill about a kilometre and a half from the Vaitarna. It was probably from this village that Ptolemy took the name Gaoris for the Vaitarna river. The village was probably the station of the *Peshva's subhedar* when North Konkan passed under the British rule. This *Subhedar* had under his charge the forts of Asheri, Gambhirgad, Koj and Takmak. The English government sold the old office at Gorha and moved the head-quarters to Vada.

The village covers an area of 464.984 hectares and has as per the Census of 1971 a population of 1,374 souls. The village has been electrified and gets its water-supply from wells. The village has a primary and a secondary school. Medical facilities to the village population are provided by a maternity and child welfare centre, a health centre and a family planning centre. A post office is also located in the village.

GUMTARA FORT

Gumtara fort, lying about 24 kilometres south of Takmak and close to the village of Dugad, is situated in Bhivandi tahsil on a hill 1,949 feet (594.055 metres) high. It is a place of great natural strength. Of the outworks which once enclosed the only accessible part of the hill nothing remained in 1818 save a low wall which in many places, was little better than a heap of loose stones which now have practically disintegrated. About the gateway, at the head of a steep and narrow water-course 400 feet (121.920 metres) from the top of the hill, were the remains of fortifications. These are mostly in ruins. Water was drawn from seven cisterns cut in the rock near the gateway. The cisterns are now dried up.

GUNJ

Gunj, with a population of 457 souls as per the Census of 1971, is a small village in Vada taluka lying about sixteen kilometres south-west of Vada. The village covers an area of 883.834 hectares. Facilities

for primary education are available in the village. The village is served by *kutchra* roads. Wells form the main source of water-supply to the village populace.

Close to the village, on the west bank of a pond are the ruins of a temple of Amba which is said to have fallen about two hundred years ago. About three quarters of a kilometre from the village, a little way up the Bhargavram hill is a temple dedicated to Bhargavram, the sixth incarnation of Vishnu. There is no record of its antiquity, but the villagers say that it was built some five hundred years ago. It was probably built by one of the Koli Chiefs of Jawhar from whom the temple held a grant of 50½ acres (about 21 hectares) of land. The temple is strongly built with neatly cut stones set in mortar. There are four doors with Ganapati images over two of them. The *sabhamandap* measures twenty-two feet (6.705 metres) by eighteen (5.486 metres) and the vestibule nine feet (2.743 metres) by six (1.829 metres). The image of the deity is in bas-relief measuring six cubits long by four broad.

Gunj is said to have been the original site of Vajreshvari goddess. On the destruction of the Gunj temple by the Portuguese the goddess was removed to Vadavali, now called Vajreshvari, in Bhivandi taluka about eight kilometres south.

JAWHAR

Jawhar, the head-quarters of the taluka bearing the same name, is located in 19°56' north latitude and 73°16' east longitude. It was once the chief town of the princely State of Jawhar. It is a municipal town and is located at a distance of eighty kilometres from Thane, the district head-quarters. The town covers an area of 9.07 square kilometres and has a population of 6,110 souls, as per the Census of 1971. Situated at an altitude of 460 metres the town gets an average annual rainfall of 3,810 millimetres with maximum and minimum temperature being 34.0°C and 25.0°C respectively. The town is free from excessive heat. The town is served by open-surface drainage system, removal of night-soil being done by hand-carts. The town gets a protected water-supply from a service reservoir with a capacity of 7,20,000 litres. The town has been supplied with electricity and there were, as per the Census of 1971, 243 domestic connections and 140 road-lighting points besides eight industrial and 77 commercial connections. One hospital with fifteen beds and two dispensaries cater to the medical needs of the town population. Educational facilities are provided by three primary schools, one middle school, one high-school and one type-writing institute. Recreational facilities are provided by one cinema theatre and one public library. In the town are located three banks.

144 Agricultural Credit Co-operative Societies and seventeen non-agricultural Co-operative Credit Societies. The late Prof. Rajwade has given the derivation of the name Jawhar in the Sanskrit word Yavasahar Prekshadigan in Gramaname in *Mahikavati Bakhur*.

History : The history of Jawhar town is linked with the history of the former princely State of Jawhar. The princely State of Jawhar consisted of two unequal patches of territory, the larger in the north-western part of Thane district and the smaller, in the north-eastern. The State was situated between 19°40' and 20°4' north latitudes and 73°2' and 73°23' east longitudes within the geographical limits of Thane district.

Upto 1294, the period of the first Muhammedan invasion of the Deccan, Jawhar was held by a Varli, not a Koli chief. The first Koli chief, Paupera, obtained his footing in Jawhar by a device similar to that of Dido, when she asked for and received as much land as the hide of a bull would cover. The Koli chief cut his hide into strips, and thus enclosed the territory of the State. In the succeeding centuries Jawhar had to carry on a struggle, first with the Portuguese, and afterwards with the Marathas. The chief of Jawhar in 1884 Malhar Rao, *alias* Patang Shaha (adopted), was a Hindu of the Koli tribe. He had power to try his own subjects for capital offences without the express permission of the Political Agent. The succession followed the rule of primogenitures : there was no *sanad* authorizing adoption. In the case of Malhar Rao, the adoption was recognised by the paramount power on receipt of a special payment or *nazarana*. Jaya Mukney, the founder of the State, established himself as a freebooter in the country about Jawhar nearly 350 years ago. He was succeeded by his son Nim Shah, on whom about the year 1341, the Emperor of Delhi conferred the title of *Raja*. So important was this event in the history of Jawhar that the 5th of June 1343, the day on which the title was received, has been made the beginning of a new era, which was used in public documents.

Objects : The only objects of interest in the town are the remains of an old palace and the new palace in the outskirts of the town.

JIVDHAN HILL

Jivdhan Hill, about 457-200 metres to 609-600 metres (1,500 to 2,000 feet) high and about a kilometre and a half east of the Virar railway station on the Western Railway, has on its top ruins of fortifications which are visible from the Virar railway station. There is an old road which goes winding from the hills surrounding the main hill with very steep climbs. Now a new road is being laid with stone

steps out of donations received from public and 811 steps have been laid till 1975.

Within the fortifications there are some ancient looking caves and water cisterns, most of which now have practically dried up. They are believed to be the work of the Pandavas. The hill is famous for the invisible Jivdhan goddess who is believed to have fled from a niche in one of the caves. Throughout the fair season people, especially barren women, from the surrounding villages, go to the caves to make offerings and invoke the blessings of the Goddess. Offerings of betel-nuts are dropped into a hole in the niche in which the offended deity is believed to reside.

A fair is held on the *Dasara* day which is attended by a thousand people. The fort is visited frequently. The temple of the Devi is completely renovated and there is a beautiful idol of the devi in white marble. There is also a temple dedicated to Shri Krishna Bhagwan. The temple is under the management of a trust.

KALDURG FORT

Kaldurg, with a height of 1,547 feet (471-526 metres) is a ruined stronghold in the villages of Varkut and Navli about thirteen kilometres north-east of Mahim. In 1862 though the defences of the fort were almost entirely in ruins it was thought advisable to destroy its water-supply to prevent robbers and outlaws from making it their base. Its grand rock overhangs the Chahad pass and is a conspicuous object from the Palghar railway station 6.4 kilometres to the north-east.

KALAMBHOM

Kalbhom, formerly known as Kalambhom, also on the right bank of the Tansa, is a village in Vasai Taluka about 29 kilometres (eighteen miles) east of Manikpur. The village covers an area of 575-059 hectares and has, according to the Census of 1971, a total population of 486 souls. Facilities for primary education are available in the village. Wells and *nallahs* form the main sources of water-supply. In the village lying on the ground, is a large stone twelve feet (3.657 metres) long, three feet (0.914 metres) broad and about a foot (0.304 metres) thick. It is probably a memorial stone since it is covered with nine-inch (0.228 metres) figures in high relief, arranged in a number of level rows or panels. Another inscribed stone measured three feet seven inches (1.692 metres) long by one foot eight inches (1.117 metres) broad. At its top were figures of the sun and the moon with a six-line inscription below. Below the inscription was the usual ass-curse with three lines

of two letters each on its left. The letters were Devnagari, carelessly engraved, and the language Sanskrit. The inscription is not dated. It records the grant of a garden, in the reign of Shilahara Aparaditya, probably Aparaditya II (A.D. 1187), to one Vararayapati in the village of Kaniyar, apparently Kanher about (eight miles) thirteen kilometres west of Kalambhom. Vararayapati seems to have been the priest in the Mahakalabhairavi Yogeshvari temple in Kanher

KALWA

Kalwa, a railway station on the Central Railway, is a non-municipal town in Thane tahsil covering an area of 6.71 square kilometres with a total population of 14,551, as per the Census of 1971. Located at an altitude of 11.0 metres it has an average annual rainfall of 2,477.5 mm, with maximum and minimum temperatures being 37.0°C and 20.0°C, respectively. It is located at a distance of a kilometre from Thane the head-quarters of the district and tahsil in which it is located and 36 kilometres from Bombay. The town is divided into seven wards with 19 blocks.

The total length of roads in the town admeasures 1.80 kilometres the entire length being of *pucca* type. It is served with open-surface drainage, night-soil being removed by head-loads. Wells form the main source of water-supply to the town populace. The town has been supplied with electricity with 524 domestic connections, fourteen industrial connections, 61 commercial connections and two road-lighting points, as per the Census of 1971. Medical facilities to the town population are provided by a dispensary and a number of private medical practitioners. Five primary schools, one high school, two type-writing institutions and three other institutions cater to the educational needs of the town people. A public library is also located in the town.

Of late the town has become an important industrial centre with the location of the industrial units like National Machine Tools Ltd., the Mukand Iron and Steel Ltd. etc.

A fair is held in the town on *Vaishakha Shuddha* 15, April-May in honour of Kalman devi attended by about 200 to 300 people. The congregation is more and goes up to one thousand during the *Pir urus* held in November every year.

KALYAN

Kalyan, in north latitude 19°14' and east longitude 73°12' the head-quarters of the Kaylan tahsil, lies at the junction of the Bombay-Bhusawal-Nagpur line and the Bombay-Pune line of the Central Railway and is an important suburban railway station. In 1971 the town

had a population of 99,547 souls with 15,642 houses and 19,988 households. It had occupied an area of 7.64 square kilometres. It is located about 53 kilometres (thirty-three miles)* north-east of Bombay. It stands pretty on outer or east side of a deep bend in the Ulhas river. Before the construction of railways it was a famous port from where a large quantity of trade was handled. Though now its importance as a port has diminished, there is considerable trade in goods, especially construction goods, now-a-days. The fort mound, which is notable from the railway about a mile to the west of Kalyan station, has a fine view north up the river with a background of low hills, west along the Ulhas valley green with trees and salt swamp bushes to the line of the Persik hills, and to the south a broad level stretch of rice lands interspersed with buildings, many of them industrial structures to the picturesque rugged crests of Malanggad, Tavli and Chanderi. A large industrial belt is located to the south-east from Kalyan to Kulgaon (*i.e.*, Badlapur), where many large and middle sized industries are concentrated. Formerly the adjoining areas towards the south of the Kalyan town were covered with forests. The town stretches from the Railway station about two and half miles north-west to the bank of the creek (Ulhas river). The famous rugged fort of Mahuli which was the last resort of Shahaji before he surrendered to the Moghals near Washind is seen to the north-east of this town to great advantage. The eastern side of Kalyan formerly known as camp, has now grown up into township as Ulhasnagar is mostly inhabited by refugees who had come to India after partition of the country. Next to Thane in the district it is a busy and very prosperous town. It is densely populated with narrow streets lined by two to four storeyed houses, many old and a few modern. The total length of the roads in the town measures about 105 kilometres. Many middle and poor class people are serving in Greater Bombay as also traders, businessmen and petty industrialists prefer to reside in Kalyan as it is a junction of two railway routes and with many local trains from Kasara, Asangaon, Titawala, Karjat, Badlapur, Ambarnath terminating there.

Drinking water is supplied by M.I.D.C., Ambarnath, which is stored in a big reservoir. The town has a taluka court, a tahsildar's office, a police station, a block development office and a sub-treasury office. Education is provided at collegiate level by the Birla College with three faculties, *i.e.*, arts, science and commerce. There are as many as seventeen higher secondary and middle schools, 45 primary schools and five other educational institutions and three other vocational institutions. The Kalyan Gayan Samaj is a famous musical institution which completed its 100 years of existence in 1976.

* Distance from Bombay V. I.

Medical facilities to the town are provided by sixteen hospitals, 94 dispensaries and a family planning centre. Of them, the lady Mangaldas Nathubhai dispensary is the oldest one.

For recreation there are four cinema houses, one auditorium and drama hall and two public libraries in the town. A number of banking offices are also located in the town.

Before construction of the bridge on the Bhiwandi road in 1914 there was a ferry service between Kalyan and Kene, a village located on the opposite bank of the creek and on the Bhiwandi road.

Under the forms Kaliyan, Kalian, Kalyan appears in nine Kanheri inscriptions which from the form of the letters, have been attributed to the first, second and fifth or sixth centuries. Two of the inscriptions mention a Buddhist monastery called Ambalika in Kalyan. According to the *Periplus* (247) Kalyan rose to importance about the end of the second century of the Christian era. At the time of the *Periplus* it had again declined. Greek ships were not allowed to trade to Kalliena, and if by chance or stress of weather they entered the harbour, king Sandanes placed a guard on board and sent them to Broach. In the sixth century Kosmas Indikopleustes (535) mentions Kalliana as one of the five chief marts of western India, the seat of a powerful king, with a great trade in brass, blackwood logs, and articles of clothing. It was also the seat of a Christian bishop who received ordinance from the Persians. About a hundred years later (640) Kalyan has been identified with Hiwen Tshang's capital of Maharashtra, which was touched on the west by a great river. This identification is very doubtful. Kalyan had already been eclipsed by Thane, whose fame as a place of trade had in 637 brought on the Konkan the first Arab invasion. Thane only is mentioned by the Arab writers of the tenth, eleventh and twelfth centuries. But this may have been because Thane was the port for foreign trade. Early in the fourteenth century (1312-1318), the Muslims found Kalyan the head of a district and gave it the name of Islamabad. No reference has been traced to Kalyan or Islamabad during the fifteenth century. It probably was nominally under the Bahmani kings, and at the close of the century, came more directly under the new dynasty of Ahmadnagar. It was taken by the Portuguese in 1536. They did not garrison the town, but, returning in 1570, burnt the suburbs and carried off much booty. It is described as having a fine fort with a garrison of 1,500 men. From this time it seems to have formed part of the Ahmadnagar kingdom and to have been the head-quarters of a province. In 1636 it was handed over to Bijapur, and it continued to be the headquarters of a district stretching from Bhiwandi to Nagothna. In 1648 Chhatrapati Shivaji's general Abaji Sondev surprised Kalyan and took the governor prisoner. The Moghals recovered it in 1660, but again lost it apparently in 1662. In April 1675 Fryer found it ruined "recking

in its ashes, the people beggarly, kennelling in wretched huts". Still there were signs of former importance. Its sumptuous relics and stately fabrics were the most glorious ruins the Musalmans in the Deccan had ever cause to deplore. There were buildings of many storeys faced with square stones and many mosques of cut stone, abating little of their ancient lustre, all watered with ponds and having about them costly tombs several of which Shivaji had turned into granaries. In 1674 under the treaty of Rairi or Raygad (June 6th), Shivaji granted the English leave to establish a factory at Kalyan. In 1728 it had a large Musalman population and several mosques, especially one on the edge of a lake. Among many ruined remains was a pretentious tomb of Matabar Khan, the noble of Aurangzeb dated 1694. In 1750 Tieffenthaler mentions it as a large and well-peopled city, with 499 splendid villages and a revenue of Rs. 94,250. It was one long street filled with merchants, the houses red-walled and covered with thatch. In May 1780, as the Marathas had cut off supplies, the Bombay Government determined to occupy the Konkan opposite Thane as far as the Sahyadri hills. Kalyan was seized and placed in charge of Captain Richard Campbell. Nana Fadnavis sent a strong force to recover the place, which, advancing to Kalyan, threatened, if resistance was offered, to destroy the garrison, and caused a European prisoner, English Fyfe, to write the commanding officer demanding a surrender. Campbell replied that they were welcome to the town if they could take it. After a most spirited defence, on May 25th the day fixed for a general assault the garrison was relieved by Colonel Hartley who surprised the Maratha camp, and, with great slaughter, pursued the Maratha army for miles. In 1781 a resident was appointed. In 1810 (26th May) Kalyan was visited by Sir James Mackintosh and a party from Bombay. They walked through the streets, almost killed by the sun, without finding any compensation for their fatigue. They sat down to their tiffin on a little green in the town and drank three or four toasts in cocoanut shells. All agreed that Dr. Fryer, whose glorious ruins and stately fabrics had tempted them to Kalyan, ought to have been hanged.

There are eight small reservoirs (*talaos*) in the town mostly of consequential antiquity, viz., (1) Bhatala, (2) Adhar, (3) Rahatai, (4) Rojale, (5) Dandesar, (6) Davinje, (7) Lendale and (8) Ghodale. Bhatala is located near the fort, Adhar, Rahatai and Rojale on the north; Dandesar on the camp road; Davinje on the south and Lendale and Ghodale in the town. Many of these reservoirs are partially reclaimed either by the municipality or by the people.

Before the Musalmans took Kalyan, the site of the town which was called Nawanager, lay to the east of the railway station. The present

town occupies the lands of Kalyan village. There are, at present, as many as 34 wards, twenty-three more than the olden days. The present functioning municipality was established in 1855.

Below is the brief description of the town appearing in the old *Gazetteer* of Thana district :

The Lendale reservoir, which was located behind the municipality's office, is now completely reclaimed by the municipality. An exquisite garden has been laid on the reclaimed land, in which a miniature zoo consisting of a panther, a few forest birds, etc. is maintained. On the reclaimed area of Lendale *talao*, a big stadium is under construction with an estimated cost of Rs. 8.44 lakhs. Besides, it is proposed to construct a swimming pool near the stadium. In the garden area there is a recreation club and a hall with a gymnasium. The Lion's Club, Kalyan, has donated a television set to the municipality which is kept in the open space of the garden.

The Shenale lake which is located about one kilometre to the north of the railway station, covers about twenty-four acres ($1,212' \times 885'$) and varies in depth from six to fourteen feet and has its sides lined throughout with broken basalt masonry. The name of the lake is traced to a bird called *Shen*, whose feathers shone like gold after bathing in the pool. The lake is also known as the *Kala talao* as the black mosque is located on its bank. During the last century almost the whole supply of drinking water came from the Shenale lake. The tank is taken in veneration by the local people for very long though the date of its construction is not known. The masonry however appears to belong to the Musalman times (A. D. 1506). It is said to have been built by the Adilshah of Bijapur. Subsequently it was renovated by Shri Ramji Mahadeo Biwalkar, the *Subhedar* of *Peshwas*. At the south-west corner of the lake is the black mosque or the *Kali Masjid*. It is also known as the Jama Masjid which was built in A.D. 1643 (*Hijri* 1054) by one *Subhedar* of Yusuf Adilshah of Bijapur known as Sayyad at his own expenses. This mosque is constructed in black rock with three arches on the face and two inside the mosque. The arches and the dome are built in a good architectural design. The wheel in the midst of the dome and the petals of lotus flower below the dome show strong Hindu influence. There is a small pond located to the left of the mosque, and close by the *Kali* mosque is a tomb of a famous Hindu ascetic named Sahajanand. On the west bank of the lake are four Hindu temples—one to Rameshwar, one to Ganapati and two to Ramji. From the west bank between the black mosque and the Hindu temples was a masonry tunnel, said to be large enough for a man to walk upright. It carried water about sixty yards to four cisterns (*ganj*) which are now in a dilapidated state. From the side of the cistern opposite the tunnel, there were three nine-inch earthenware pipes, placed one below the other

about three feet apart, carrying water to three deep wells, one in *Kumbharwada*, one in *Maliwada* and one opposite the house of the *Sar-Subhedar*, i.e., the *Subhedarwada* of Ramji Mahadev Biwalkar where the Gokhale Education Society's High School is located. Shri Ramji Mahadeo is believed to have constructed the water works, when governor of the North Konkan under the *Peshwas* (1760-1772). From Ramji's well the water passed to a large brick reservoir 190'×100' with a flight of stone-steps on the west side that led twenty feet down to the under-level. On the east bank of the lake is the handsome tomb of Matabarkhan, a governor of Aurangzeb, with the inscription "Center Heaven" (in urdu *उद्दुली जनती*), which gives the date 1108 (Hijri), that is A. D. 1694. It is said that the monument cost about a lakh of rupees. There is a small mosque near the *makbara* (tomb). Both the black mosque and the *makbara* of Matabarkhan show an inner structure which has been thickly plastered. Remains of some ancient buildings are shown over and used as steps or seats.

The *makbara* is now in a dilapidated condition. Originally the entire area surrounding the *makbara* (five and half acres) was owned by one Pathare who sold it to Sayyad Ahmad Ajikhan and Sayyad Afzul Ajikhan Pirzade in 1932; the present owner Joseph Dominic Colaco bought it in 1953. The land surrounding the *makbara* has been developed and is used as agricultural land as also for growing vegetables.

Under the Musalmans the town of Kalyan was surrounded by a stone wall begun by Nawab Matabar Khan, the minister of Shah Jahan (1628-1658), and completed in A. D. 1694 (A. H. 1103) during the reign of Aurangzeb. The total length of this wall was about 2,123 yards. It was surrounded by a ditch 33 feet wide with a depth of twenty feet. Under the English, the east and south town wall was pulled down in 1865, and a road run along the line. It is also said that the ditch was reclaimed during the same period. After dismantling the west town wall the stones of the same were taken to build the Kalyan and Thane piers and dwelling for the customs inspector in the west of the fort. The town wall had as many as eleven towers and four gates and had enclosed an area of seventy acres. At the north-east corner of this area on high ground on the bank of the Ulhas river (the creek) is a fort, popularly known as the *Durgadi Killa*. In the north-west corner of the fort on a mound about thirty feet above the level of the old wall were, a Musalman tomb, prayer place and other buildings. Of the eleven towers of the town wall, four were large and the rest small. Of the four main towers one was in the north-east corner, another in the middle of the east wall, the third in the south-east corner, and the fourth to the landing place. No remains of the towers and gates can

be traced now. Of the four main gates, the *Adhar* gate, called after the village of Adhor (now a part of Kalyan) about half a mile to the north, was near the middle of the north wall and the *Ganesh* gate about 400 yards distant, was near the middle of the east wall. Till recently on every *Dasara* day the Hindus used to sacrifice a buffalo in honour of the Devi, burying its head close to the *Ganesh* gate. Now, this practice is no longer followed. The *Panavel* gate was near the middle of the south wall and *bunder* or wharf gate was in the centre of the west wall.

Tradition goes that on an open space adjacent to the house of one Rajaram Paranjape, the *Baradari* or the *Darbar* of Shivaji used to be held. In this *darbar*, the tradition says Abaji Sondeo, a commander of Shivaji known for his attack on Kalyan treasury presented the daughter-in-law of the Kalyan's Subhedar to Shivaji who treated her as his own daughter and sent her back with honour and dress. It is not known as to when the Durgadi fort was constructed. The wall of the fort along the top of the inner bank of the ditch, and, near the north end, had a gateway known as the *Delhi* or *Killyacha Darwaja*, which was entered by a path along the top of the north side of the town wall. Inside the fort there was a low belt of ground, about the same level, as the top of the ditch, with a shallow pond not far from the *Delhi* gate. The remains of the pond are still visible. In the north-west corner the fort rose in a small flat-topped mound about thirty feet high. On the top of the mound, on the west crest which overhangs and is about 100 feet above the river, is the prayer wall or *idgah*, sixty-four feet long, thirteen high and seven thick, which is now in a dilapidated condition. This doubtful wall is said to be of the old Durga temple wall and is thickly plastered. It is said that near the east crest of the mound there was a mosque, but no remains of it can be traced. About thirty to forty yards of the *idgah* was a round cut stone wall of great depth, eleven feet in diameter with a wall two feet eleven inches thick at the top, which has now completely collapsed except the basement of the wall. Under the Marathas (1760-72), a new gate about 150 feet to the south of the *Ganesh* gate was opened near the mansion of Ramji Mahadeo Biwalkar, the *Peshwa's* Governor*. In the citadel of the fort the Marathas built a small wooden temple of Durgadevi behind the mosque, and called the fort *Durgadi killa* in honour of the goddess, a name which it still bears. They also converted the mosque into Ramji's temple. The fort measures 220 feet in length and somewhat less in breadth. Under the English the fort wall was dismantled and stones carried to build the Kalyan and Thane piers and a dwelling for the customs inspector in the west of the Kalyan

* The gate was burnt by the British in 1780.

fort. The gate to the north-west is almost the only trace of the fort wall, which is of rough stone masonry. During 1876 the original idol of the goddess Durga was stolen. The other idol was placed during the last decade of the 19th century. The present fort as well as the present Durga temple was renovated (*jirnoddhar*), by the Kalyan municipality on 15th December 1974. A new idol of goddess Durga made of *Panchadhatu* (five sacred metals) was installed by Shri Gajanan Maharaj and Shri Annasaheb Pattekar of Thane on the same date. The idol is four-armed, three and half feet in height, with a lion resting at its back. To the right of idol is the old idol. The municipality has constructed a new gate 35 feet high and with four towers. There has also been laid a beautiful garden which surrounds the fort. The fort which has now more or less become a picnic spot gives an excellent view of *Retibunder*, the creek, the Bhiwandi bridge, the groves near and afar and the hills to the north of the fort. The construction of *subhedarwada* was started in *Phalgun shake* 1688 and completed in *Shake* 1691 and is a good structure done in fine woodwork. The hall, popularly known as the *Ganapatimahar*, is quite spacious with the same design as the *Ganapatimahar* of *Shaniwarwada* in Pune.

About twenty-two yards to the south of the fort gate, the creek was crossed by a wall which begun near the Delhi gate, and across the creek ran about 1,000 feet east upto the *Adhar* gate. There is a large white Christian tomb to the west of the town near the *bunder*, close to the landing place without an inscription. It is said to have borne the date 1795, and is believed to have been raised in honour of Captain Richard Campbell, who held the fort of Kalyan against the Marathas in 1780.

Somewhere across the river the Portuguese, in the sixteenth century, built a bastion called Belgrado or Santacruz, to prevent the Musalmans' ships from passing the Salsette (the area of suburban Bombay and Thane tahsil). In 1634 this bastion was described as a wall and platform, having two iron and one brass falcons garrisoned by eight soldiers and one bombardier.

At present there are about thirty to thirty-five Hindu temples, and one Jain temple. Most of the temples are Brahmanic temples; of them some are dedicated to Shiv, some to Vishnu and some to local or early deities. Most of these temples date subsequent to the arrival of the Musalmans (1300). Of the whole number, sixteen were built under the *Peshwas*, and the remaining except the Dnyaneshwar temple after the fall of the Maratha state. The chief temples are Ramchandra's on Shenale lake, Ramji's and Mahadev's near the former *mamlatdar's* office, *Devi's* and Trivikram's on the station road, Durga Devi's on the Durgadi fort, and the Dnyaneshwar's on the Agra road, the last of which was constructed in 1943.

Besides the Hindu temples, there are as many as fourteen mosques in the town of which the Black or *Kali* mosque (or *Jama masjid*) on the bank of *Shenale* lake, *Makbareka masjid*, *Mehman masjid* and the *bunder masjid* are of consequence. The *dargah* of Gulam Ali Shah is located at some distance from the *makbara* of Matbarkhan, where an *urus* is held on every *Zilhija*, 10th of the *Hijri*.

There are four churches in Kalyan, of which the Methodist church is famous and is located to the east of the Kalyan railway station.

The Parsis who had been long settled in Kalyan have, about three miles north of the town, a Tower of Silence, now not in use as most of the Parsis have migrated from Kalyan to some other part of the peninsula. It was built in 1790 by Nawajbai, the widow of Nasarvanji Dadabhai Modi. A few yards from this tower are the foundations of an old tower, which as it is made of brick, was probably built before 1553. There was a Parsi fire temple built in the last century, of which now no trace remains.

There are six public gardens in the town, the *Jijamata Udyan* near Durgadi fort, *Rani Laxmibai Udyan* near *Jehangir maidan*, *Rajarshi Shahu Maharaj Udyan* in *Kolsewadi*, *Baji Prabhu Deshpande Balodyan* in *Bharatacharya Vaidya Chauk*, *Dr. Babasaheb Ambedkar Udyan* in *Mahatma Phule Chauk* and *Shankarrao Udyan* behind Kalyan Municipality's office. It is proposed to extend the *Jijamata Udyan* and to make it the biggest one in the Kalyan town. Besides, there are three fountains in the town, one near *Subhash Putala* (idol) in *Subhash chauk* on Murbad road, second near *Shivaji Putala* in *Shivaji chauk* near the Prabhakar tower and the third in *Shankarrao Udyan*. The later is attached with coloured lights.

Besides the above-mentioned objects, the others of note are the following :—The Bridge on the Bhiwandi road across the creek near Durgadi fort, which was built by the British in 1914. In the midst of the town are the *Pimpalacha par*, *Sarkarwada*, *Chaskar Joshiwada* and *Ramji* temple. Besides the Black mosque and the *makbara* of Matbarkhan on the bank of *Shenale* lake is the Rameshwar temple. *Saticha Par*, *Chabutara*, tombs, etc. near the Rojale lake.

KAMANDURG

Kamandurg, situated in the village of Kaman in Vasai taluka and lying sixteen kilometres east of Manikpur, is a conical hill rising to a height of 2,160 feet (658·368 metres). It forms the southern end of the Tungar range with the remains of a fort on its top. The hill was formerly a trigonometrical survey station and is the most striking feature in the range which runs from the Vasai creek north to the Vaitarna.

KARAJON

Karajon, formerly known as Karanjon, is located at a distance of about sixteen kilometres to the north-east of Manikpur in Vasai tahsil and has, as per the Census of 1971, a total population of 467 souls. The village covers an area of 1442.301 hectares and has been supplied with electricity. Wells form the main source of water supply to the village population. The village has kutchra roads and is connected with Manikpur by the State Transport buses.

In the village was found an inscribed stone 4' 10" long by 1' 4" broad and 7" thick, which is now in the Collector's garden at Thane. Above, between figures of the sun and moon, begins an inscription of thirteen lines in dim spoilt letters difficult to read. All that can be made out, and even this is doubtful, are in the third and fourth lines the words "the illustrious Haripaldev, the chief of the *Mahamandalshvars*, adorned with all the royal titles". Haripal, it appears from another stone inscription, was a Shilahara king who ruled about the end of the eleventh century.

KATEMANIVALI

Katemanivali is a non-municipal town in Kalyan tahsil located at a distance of two kilometres from Kalyan and eight kilometres from Ulhasnagar. Grouped under the functional category of industry, the town covers an area of 2.36 square kilometres and has a population of 9,647 souls, as per the Census of 1971. Divided into ten blocks the town has 1,500 occupied residential houses with 2,036 households. Of the total working population of 2,814, as many as 1,096 males and thirty-five females were engaged in manufacturing other than household industry. In the town are located one bank and one agricultural credit society. Plastic sheets are manufactured in the town.

Located at an altitude of fifteen metres the town gets an average annual rainfall of 2,355.4 mm. the maximum and the minimum temperatures being 34°C and 25°C, respectively. The total length of roads in the town admeasures 4.46 kilometres. The town is served by open-surface drainage, the night-soil being disposed of by head-loads. The town gets protected water-supply through taps while wells form an additional source of water-supply. The town has been supplied with electricity with, as per the Census of 1971, 930 domestic connections, fifteen industrial connections, twenty-one commercial connections, 898 other connections and two road-lighting points. There are two dispensaries in the town besides a few private medical practitioners. Educational facilities to the town population are provided by two *balwadis*, two primary schools, one high school and one type-writing

institution. One auditorium and one public library are also located in the town.

KATI

Kati is a small village in Wada tahsil, covering an area of 162.684 hectares and has a population of 147 souls, as per the Census of 1971. Facilities for primary education are available in the village. The village is served by *kutchra* roads. Wells form the main source of water-supply to the village populace.

In the village is a shrine of Vajreshvari which was re-built in 1880. It measures twenty-four cubits long by sixteen broad and had an endowment of a little over 46 acres of land. To the north of the temple is a small cistern called Bhagirathi Kund with a perennial supply of water.

KASHI MIRA

Kashi and Mira are two villages in Thane taluka located close to each other. Kashi covers an area of about 510 hectares and has, according to the Census of 1971, a population of 1,346 souls. Mira covers an area of about 699 hectares and has a population of 2,223 souls, as per the Census of 1971. Both the villages have been electrified. Wells form the main source of water-supply for Kashi while in case of Mira additional source of water-supply besides wells is provided by a tank. It also gets a tapped water-supply. Facilities for primary education are available in both the villages, with each village having three schools. Both these villages are served by State Transport buses plying from Borivli to Thane.

The surroundings of the two villages abound in natural beauty and scenery. Just after leaving the check-post at Dahisar is an open surface with the backdrop of hills with zigzag (serpentine) paths leading up the hills. And it is this flushy back ground that has given these two villages the name "Kashmira".

In the village of Kashi is located a church dedicated to St. Jerome admeasuring fifty-two feet long by seventeen feet broad and eighteen high. An annual fair is held at this church on the 25th and 26th December. The fair is attended by about 2,000 people.

KAWAD

Kawad, located at a distance of about six and a half kilometres from Bhiwandi, is popularly known as Angaon Kawad and has a *samadhi* of Shri Sakharam Maharaj. Near the place of *samadhi* are

two buildings, one of which is used as a cook-house and the other as a residence for the pilgrims visiting the place. Great celebrations are held on *Bhadrapad Vadya 7* and people assemble in large numbers at the time of the fair held on the *Dattajayanti* day.

KELVE MAHIM

Though always grouped together and taken jointly, Kelve and Mahim are two fairly big villages in Palghar taluka. The village of Mahim is located at a distance of 8.4 kilometres to the west of Palghar railway station on the Western Railway with which it is connected by a good metalled road. The village of Kelve lies on the other side of a creek about four kilometres to the south.

The coast is very rocky. A reef, partly dry at low water, stretches for about three kilometres from the shore, and three kilometres further is another patch of rocks covered with about 5.486 metres of water. On the coast, in front of Kelve, is a little detached rock fort. In 1634 both the Mahim and Kelve rivers were blocked with sand-banks.

The village of Kelve covers an area of 4,019.746 hectares and has, as per the Census of 1971, a total population of 7,710 souls. The village has been supplied with electricity. Wells, a nallah and a tank in the town form the main sources of water-supply to the village population. Educational facilities are provided by three primary schools, a middle school, and a secondary school. A dispensary and a family planning centre cater to the health needs of the villagers. Post and telegraph facilities are available in the village. The village is served by *pucca* roads and is connected with other places by the State Transport buses. It is a railway station on the Western Railway. The village is famous for the fort and a temple dedicated to Shitaladevi.

The village of Mahim covers an area of 3,715.827 hectares and has a population of 9,883, as per the Census of 1971. The village has been supplied with electricity, and wells form the main source of water-supply. Educational facilities to the village population are provided by three primary schools, one middle school and one secondary school. Located in the village is a dispensary conducted by the Zilla Parishad. The village is served by *pucca* roads and is connected with other places by State Transport buses. Post and telegraph facilities are available in the village. It has a temple dedicated to Shankar.

History : According to tradition, at the close of the thirteenth century Kelve-Mahim was taken from its Naik chief by Bhimdev, the chief of Bombay-Mahim. It passed to the Delhi Muslims about

1350, and from them perhaps about 1400, to the Gujarat kings who kept it till it was taken by the Portuguese about 1532.¹ In 1612 it was attacked by the Moghals but bravely and successfully defended. In 1624 De Valle speaks of two towns at Mahim. In 1634 the town is described as about the size of Dahanu, with many orchards and fruit trees and much good water. The fort was equal to Dahanu and Tarapur, and was armed with four brass falcons for shooting stone balls, and had a good store of gun-powder and other ammunition. There was a Portuguese Captain, ten Portuguese soldiers, one *naik*, ten *sepoys*, one inspector of police, and four constables and a torch-bearer. Close to the fort was a village inhabited by fifty Portuguese families, among whom there were some of noble birth, 150 native Christian families and 200 slaves who carried arms. In 1670 Ogilby mentions Quelmain as a Gujarat coast town, called from two villages near the coast, one Kielwe, the other Mahi. The fort and village of Mahim are mentioned by Gemelli Careri (1695). In 1728 the fort was described as weak and irregular, a very low wall of stone and mud 550 feet (167·640 metres) long and 250 (76·200 metres) wide, with three bad bastions looking to sea and four to land. It was guarded by fifteen pieces of ordnance and a garrison of sixty soldiers, seven of whom were white. A stockade at some distance was under a captain with thirty men. In January 1739 it was taken by Chimaji Appa, brother of Bajirao, the second Maratha *Peshwa*, after an obstinate defence. In 1750 it is mentioned by Tieffenthaler as a place once under the Portuguese, then under the Marathas. In 1750 a small fort to the east of Mahim formed a triangle flanked by two five-cornered embrasured bastions, one to the north, the other to the east. The Mahim fort was long, and part of it was washed by the waters of the creek. From the road it appeared a broken curtain with nearly ruined bastions. At Kelve a new fort was being built; close-by were three deserted towers, a ruined bastion, and a ruined church. In 1788 Hove called it Kelne chiefly inhabited by fishermen. The ruined church was used as a cow-pen. In 1826 Kelve had 300 houses, a temple, and twenty export-dealers, and Mahim had 1,200 houses and a rest-house.

The old *Thana District Gazetteer* gives the following information about the municipality and other buildings in Kelve Mahim :—

“The municipality, which was established in 1857 had, in 1880-81, an income of £ 289 (Rs. 2,896), representing a taxation of about 10 *d.* (6 *as.* 5 *pies*) a head. The expenditure, during the same year,

¹ Nairne's *Konkan*, 22. Mahim is mentioned in the sixteenth century (1554); as in direct trade with Arabia, and as exporting fine muslin from Kandhar in the Deccan, Daulatabad and Burhanpur. This is probably the Bombay Mahim, *Jour. A.S. Beng.* IV-440, 468; *Jour. A.S. Beng.* V-2, 461.

amounted to £ 287 (Rs. 2,872), most of which was spent on roads. The sea trade returns for the five years ending 1878-79 show, for Kelwe, average exports worth £ 3872 and average imports worth £ 2,147. Exports varied from £ 1,106 in 1877-78 to £ 5,285 in 1876-77 and imports from £ 1,225 in 1876-77 to £ 3,131 in 1877-78. In Mahim exports averaged £ 4,972 and imports £ 2,789. Exports varied from £ 674 in 1875-76 to £ 7,015 in 1878-79 and imports from £ 1,411 in 1876-77 to £ 4,769 in 1874-75.

Besides the chief local revenue and police offices, Mahim has a post office, a dispensary, and two schools. The public offices, which are built on the standard plan, stand immediately to the east of the fort. They were completed in 1876 at a cost of £ 4,354 (Rs. 43,540). The dispensary, established in 1872, is under the charge of an assistant surgeon, and is supported by a Government grant of £ 320, a local funds grant of £ 140, and a municipal grant of £ 43. The attendance in 1880 was 6,774 out-door and 34 in-door patients. Near the dispensary is a rest-house built by Vikaji Mehraji about 1825. The new school house, opposite the public offices, was built at a cost of £ 751 (Rs. 7,510). It has room for 200 boys. In 1882 a tomb-stone with the inscription 'This grave belongs to Don Francisco Balbora de Magathacus, Knight Fidalgo of the House of His Majesty, and of his wife Guiomar de Siqueira, and of his heirs was found in the corner of the cocoapalm garden close to the fort and to the *mamlatdar's* office. This stone is now in the Collector's garden at Thana. There seems to have been ten or twelve other tombs near where this slab was found, but their stones have been removed."

Objects Forts: When surveyed in 1818 Mahim fort was of inconsiderable strength and size, and had an enclosure of about eighty feet square. The extreme height of the rampart, including a parapet five and a half feet long by three thick, was twenty-eight feet. The principal gateway on the east or land face was covered by a projecting wall three feet thick by about fourteen high. The western face of the fort was washed by the sea, or rather the Mahim creek. On the other three sides was a space enclosed by a wall of loose stones, in which were a few huts belonging to the garrison. Stretching across the whole breadth of the fort, and occupying a third of the original enclosure, was a ruined building for the accommodation of the garrison and stores. The rest of the space was taken up by a neglected well of indifferent water. The fort was so surrounded, to the very foot, by the village and trees that an assailing force could approach unperceived. Of later date than the fort, but of the same height and joined with it, was an hexagonal battery with ten guns. Below the battery was a casemate or bomb-proof chamber also for ten guns. In 1862 it was

in good condition and strongly fortified, the strongest fort south of Daman except Arnala. In 1881 the fort was one of the Collector's district bungalows.

Kelve fort, about two miles south of Mahim fort, when surveyed in 1818, was a series of petty fortifications, consisting of a raised battery on the north bank of the Danda creek or river, and an insulated fort 800 yards to the west, built at the very mouth of the river. The battery, known as Alibag fort, was an irregular pentagon, the longest side not more than forty-seven feet, with a thin parapet wall five and a half feet high with five openings for cannon. Almost the whole inside was filled by ruinous buildings. The entrance into this work, the platform of which was fourteen feet high, was by a movable ladder. So mouldering was the escarpment, that the battery did not seem strong enough to resist even a slight attack. Opposite the battery the river was more than a quarter of a mile broad at spring tides, but was fordable at low water. The fort at the mouth of the river, which is known as Panburuj, lay 800 yards to the west of the battery and was about the same height and not less ruinous. Cross walls divided it into three parts, the centre, containing a neglected reservoir seventy-three feet by forty-six, and at the ends two projecting batteries each with five embrasures and a little parapet four feet thick. Over the battery, towards the sea, was another battery raised on planks with a tiled roof and a dwarf parapet mounting seven guns. This battery served to accommodate the garrison and stores. Between the villages of Kelve and Mahim, at a little distance from each other, were a redoubt and battery which were in worse order than the fort and battery at Kelve. Both were destitute of stores, of water, and of the means of defence. As has been noticed in the History Chapter, the Portuguese found it necessary to line with forts the coast between Mahim and Arnala. In the fifteen miles between Shirgaon, a couple of miles north of Mahim, and Dantiwara close to Arnala, there are remains of sixteen forts. Two miles south of Shirgaon was the Mahim fort, half a mile further south the Fudka tower, a mile further the Madla tower then, after another mile, on the north side of the Danda creek, the Alibag fort, with the Pen tower in the middle of the creek, thoroughly commanding its entrance. On the south side of the Danda creek, in the survey village of Khatale, popularly called Danda, stood the Danda fort. Close-by is a large ruined building known as *kital* a word which Dr. Da Cunha identifies with Quintal, an enclosure or garden, attached to a Quinta or country house. Fine old fruit trees and walls support this view. Among the ruins, lies a large stone with a much worn coat of arms. In Danda, towards the sea, was a second fort known as the Tankicha tower. South of Danda every village, Usarni, Mathane, Yadvan, Kore, and Dantivare, had its fort, while, inland, in Virathan, Chatale, and

Khatale, lay a second line of fortresses, Bhavangad in Khatale being strongly placed on the top of a hill (*see Bhavangad*).

Temples : Besides the fort the other objects of interest in the Kelve Mahim are two old temples, one of Shitala Devi and the other of Goddess Kalika. Tradition says that the former is as old as Ramayana. The temple of Kalika has some good architecture with the four-handed goddess mounted on a lion and attacking a demon.

KOJ FORT

Koj fort, also known as Kohajgad, is situated in the village of Gorha about sixteen kilometres to the west of Vada, the headquarters of the tahsil bearing the same name, in which it is located. Standing on a hill 1,906 feet (580-945 metres) high it can be reached only up a ravine formed by two projecting spurs. In 1818, near-by at the head of the hill, 400 yards (365-760 metres) to the south of the upper fort and commanded by it, was a gateway now mostly broken with low ruinous works on each side stretching from one spur to the other. Half-way between the gateway and the upper fort, on a level space, there were the ruins of the redoubt. To the west, from 150 (45-720 metres) to 200 feet (60-960 metres) below the upper fort and passing a little beyond it, a path used to lead to the plain below, but it had long been impassable. The ascent to the upper fort was steep, the latter part of it by steps exposed to a double enfilade from a detached tower and from works over and on each side of the gateway between two projecting towers, nine feet (2-743 metres) apart and situated about half way-up on the western face. The top of the hill was about 400 yards (365-760 metres) long and in many places not more than forty yards (36-572 metres) broad. Round the greater part of the hill, the cliff was so sheer that the works were almost entirely confined to the southern and western sides. Depending upon the nature of the ground on the outside, the height of the works varied from ten (3-048 metres) to twenty-five feet (7-620 metres). The fortifications looked as if they had been neglected for years. The cement for the greater part was washed away, and but for dwarf wall here and there, the works were little better than heaps of loose stones. The only buildings of any consequence inside the fort were a granary, a store-room and house for the garrison. Ten cisterns cut in the rock, nine in the plain to the west of the upper fort and the tenth outside of the gateway, supplied water. In 1862 the fort was in ruins; water was plentiful but food supplies were not available. Now the fort is infrequently visited due to its inaccessibility. The water resources have also now dried up.

KOKANER

Kokaner, also known as Kokamber, is a small village in Palghar taluka covering an area of 417.231 hectares and a population of 462, as per the Census of 1971. The village is famous for its hot-water spring and a temple dedicated to god Shankar. Facilities for primary education are available to the village population. The village has been supplied with electricity and gets its water-supply from wells and the river. The village is located at a distance of twelve kilometres from Palghar.

Every year a fair is held in honour of Lord Shankar on the day of *Mahashivratri*. About 1,500 people congregate at the time of the fair.

KOPHARAD (KOPRAD)

Kopharad, also known as Koprad, is located in Vasai taluka and has a population of 2,809 souls, as per the Census of 1971. It covers an area of 164.302 hectares and has been supplied with electricity. Facilities for primary and secondary education are available in the village. Medical facilities to the village population are provided by a public dispensary located in the village. Wells form the main source of water-supply to the town populace. The village has *pucca* roads and has been connected by the State transport buses. Virar, the nearest town to the village, is located at a distance of five kilometres.

An inscribed stone (3'5"×1'2"×7") of S. 1386, H. 868 (A. D. 1465) was lying near the house of the head-man of Koprad, a Samvedi Brahman, in April 1882. The inscription is in Devanagari letters. It mentions Musalman names, and the names of Mahim, Thane, Koprad, and Bimbstan probably Mahim. It has a Christian church dedicated to the *Espirito Sancto* or Holy Ghost. It is sixty feet long by twenty-two broad and twenty-seven high, with a house for the Vicar.

KUDUS

Kudus, a small village in Vada tahsil, is located in 19°30' north latitude and 73°05' east longitude. The village is located at a distance of about fourteen kilometres to the south of Vada, the head-quarters of the tahsil. The village covers an area of 391.736 hectares and has a population of 1,216 souls, as per the Census of 1971.

The village is famous for the shrine dedicated to a Musalman saint which has an *inam* grant of about 27 to 28 hectares. Every year a fair is held at the tomb of the Musalman saint in April and May from the seventh of the bright half to the fourteenth of the dark half of *Chaitra*. The fair was formerly attended by between three to four thousand

people from Vada, Mahim and Bhiwandi sub-divisions and several thousand rupees worth of grain, cloth, fish, copper pots, pepper, vegetables and sweetmeat were sold. However, of late the attendance has dwindled to about 2,000 and the trade has almost disappeared.

KULGAON

Notified as town for the first time in 1971 Census Kulgaon is a non-municipal town in Ulhasnagar tahsil, ten kilometres from Ulhasnagar, Badlapur on the Central Railway being the nearest railway station. The town covers an area of 3.63 square kilometres and is divided into eleven blocks. The total population of the town is 6,758, as per the Census of 1971, with 903 occupied residential houses and 1,378 households. Located at an altitude of 21.3 metres, the town gets average annual rain-fall of 2,400 mm. with maximum and minimum temperatures being 35.5°C and 12.0°C, respectively.

All the roads in the town are *kutchra* roads admeasuring 1.60 kilometres. The town is served by open-surface drainage, night-soil being removed by head-loads. Wells form the main source of water-supply. The town has been supplied with electricity and, as per the Census of 1971, there were in the town 700 domestic connections, two industrial connections, 24 commercial connections and 155 road-lighting points. Two nursing homes with twelve beds and seven dispensaries provide medical care to the urban population. One *balwadi*, three primary schools, one secondary school and one type-writing institute provide educational facilities to the town populace. A public library is also located in the town. Located in the town are two banks and one agricultural credit society.

An annual fair is held in the town in honour of Devi on *Chaitra Shuddha* 15 (March-April), when about 800 people assemble. An *urus* is held every year in April-May when a small attendance of about 150 persons is noticed.

LONAD

Lonad, a small village in Bhivandi taluka, is situated about 6.4 kilometres north of Kalyan and 9.6 kilometres south-east of Bhivandi. The village lies about 0.80 kilometres north of the Ulhas river. To the north stretch low rolling bare hills with the great cleft head of Mahuli towering behind. To the south, the winding line of the Kalyan creek, and beyond are low rounded hills, and, in the distance the jagged crest of Malanggad, the long even-topped crags of Tavli, and to the left the single peak of Chanderi.

The village covers an area of 11.59.020 hectares and has, as per the Census of 1971, a total population of 2,198 souls. Facilities for primary

education are available in the village. Wells form the main source of water-supply to the village populace.

A group of Buddhist caves of the sixth or seventh century in a glen about 1·61 kilometres north of the village, a group of sculpture perhaps of the tenth century in a shed about 0·80 kilometres to the south of the village, a ruined Shaiv temple of the eleventh or twelfth century in the heart of the village, the mention of another temple in a beautifully cut land-grant stone dated A. D. 1239 (S. 1161), in a field close to the group of sculpture, and the sites of several other temples and old buildings, show that Lonad was a place of religious interest from the seventh to the thirteenth century.

From Bhiwandi, after seeing the old mosque and tombs and the traces of earlier Hindu buildings at Sonavli, an excellent road leads about 4·8 kilometres east of Chaudharpada, a hamlet about half a kilometre south of Lonad. On the way, about a kilometre and a half to the west, in Lonad limits, is a sun and moon grant-stone much worn with the date A. D. 1184 (S. 1106). At Chaudharpada, under a small badly repaired tiled roof, on a plinth about three feet high, are a finely-carved *ling* and a well-cut and well-preserved group (2'7"×2'2") of a four-armed Mahadev with Parvati on his left knee. In Mahadev's upper right hand is a trident, and in his lower right hand, a citron; in his upper left hand a snake and in his under left hand a lotus. Parvati's hair is gathered in a big knot at the back of her neck. She has large ear-rings, well-carved bracelets and necklace, and the ends of her robe are clearly shown. The work is probably of about the tenth century. About 100 yards to the east, lying on the ground is an inscribed slab of trap 6'2"×1'5"×10". At the top are the sun and moon with an urn-shaped water-pot between them; below is a clear cut writing of twenty-three lines, in Devanagari characters and Sanskrit language; below the writing is the usual ass curse. The writing begins with an invocation to Sumpeshwar Mahadev and records a grant by Apararka's son Keshidev in *Shak* 1161 (A. D. 1239) on Monday, *Magh Vadya* 14th, i.e., *Mahashivratri* or the great night of Shiv (January-February). The grant is described as having been made in front of the image of the god (Sumpeshwar). It presents a village named Brahmapuri to the poet Soman 'devoted to the worship of Shompeshwar'. The names of the four *ling* ministrants or *batukas* are given as Somanayak, Ramnayak, Govindnayak, and Naonayak and a grant to them is recorded of Majaspalli in Bapgram, evidently the modern Babgaon about half a kilometre to the south of Chaudharpada.

The temple of Sumpeshwar, referred to in this grant, seems to have stood on a mound about fifty yards north of where the grant-stone is lying. The ground is full of old bricks and large dressed stones. It was close to this that the above-mentioned Mahadev and Parvati group was

found. At two other places, one about sixty yards to the north, the other about 100 yards to the west of this mound, are traces of old bricks and raised plots, the sites of old buildings.

In the village of Lonad, about a quarter of a mile to the north, is a ruined temple of Rameshwar, built of well-dressed slabs of trap fitted without mortar and with cross corner domes in the Chalukyan or Hemadpanti style, perhaps about the eleventh century. The temple was entered from the east, the shrine was in the west, and, in front of the shrine, was a hall with a central dome, and apparently two side shrines to the north and south. There is no trace of the entrance porch, and the roof of the outer rim of the dome. There are remains of the side shrines, and, in the west, the walls of the vestibule or passage to the shrine. On the passage walls about eight feet from the ground, are two belts of figure sculptures each about a foot broad now much defaced. Some of the groups of sculptures were indecent. The roof of the passage in front of the shrine remains, and in the ceiling is a finely-carved lotus stone. A door, seven feet by three and a half, leads to the shrine, which is below the level of the ground and is reached by four steps. The shrine measures about nine and a half feet square and has walls of plain dressed stone. On the north wall, about five feet from the ground, is a stone shelf for worship-vessels, and, about five feet higher, groups of little pilasters, standing out from the wall, support the outer rim of a dome which rises in three tiers to a finely-carved lotus flower key-stone. The object of worship is a made *ling*; the ministrant is usually the head-man of the village, an Agri by caste; the offerings are of flowers. The shrine is in very bad repair. It is interesting as showing the arrangements of the ruined Ambarnath shrine which it closely resembles. Both have the channel, some feet up the wall, through which water is poured to deluge the god in seasons of short rainfall. The carving is probably about the eleventh century. The temple is much smaller and more ruined than the Ambarnath temple, and does not seem to have been nearly so richly carved.

About a mile north of the village, in the east face of a small glen is a Buddhist chapel or Chaitya cave, and two or three unfinished cells. From a narrow belt of rice land that runs up the glen, the hill sides rise covered with grass and rows of black trap boulders, with a sprinkling of thorn bushes, and, near the glen head some teak coppice. A steep rough foot-path leads to the chapel about 200 feet up the east side of the glen. The chapel consists of a double veranda and a hall, and an unfinished shrine. The caves and roof of the outer veranda have fallen. It measures sixty-three feet long by nine broad and nine high. At the left end of the veranda is an underground cistern of good water, and, in a recess at the right end, is a large group of figures, a king surrounded by attendants, the figures, life size four

feet high as they sit. The outer veranda is divided from the inner veranda by a row of three pillars and end pilasters. The pillars are square, three feet broad on each face, and six feet ten inches high. The capital of the pillar to the right is plain; the other pillars have rounded fluted capitals. In the face of the left end pilaster a modern *Conapati* has been carved, and there is a modern *ling* in the veranda. Above the pillars, at the back of the veranda, runs a sculptured frieze of panels of human figures carved with skill and spirit, but about one-third defaced. The inner veranda measures about fifty feet by nine and nine feet high. The walls are plain. It opens into the hall by a central and two side doors. The central door, which measures seven and a half feet by four and a half, has side mouldings and two pilasters. Below at each side, are two stools or pedestals, like a basket or jar carried on some one's head, hands clasping the sides to keep the jar steady. Over the door are the lightly-chiselled outlines of three tiny horse-shoe arches. The left side door measures six feet ten inches high by three feet eight inches wide and the right side door seven feet nine by three feet ten. They are plainer than the central door but have small standing side figures. The hall is about fifty feet long by eighteen broad, and ten or eleven high. In the centre of the back wall is an unfinished shrine. It has two rough modern images, smeared with red-lead, *Khandeshvari* to the right and *Mahishasurmardini* or the buffalo-slayer to the left. The unfinished cells are a little up the hill to the left.

The chief interest in the cave is the sculptured group at the south end of the outer veranda, and the carved scroll that runs along the top of its inner face. The group in the south wall is a king and attendants. In the centre sits a beard-less king, his right foot raised on the seat and his left foot hanging in the air and held by a woman who fondles or shampoos it. His right hand is broken, and his left hand rests near his left hip on a waist-cloth of muslin which hardly shows. In front is a spittoon. Behind the king, on the right, a woman holds a guitar in her left hand, and the king's sword in her right, the hilt close to her right ear. Behind this woman are men and women servants, one with a wash-pot, another with flowers. Above the king stands a woman, with her finger to her lip and cymbal in her hand, and besides her are, a man and a woman holding some articles for the king's toilet. To the king's left is a woman with a purse in one hand and a cup-closed water-pot in the other. In the extreme left, a man seems to touch her right ear-ring. Below, two men perhaps ministers, with closed-curved hair, sit talking together. In the right, two men sit talking, and above them is a woman. The group is well-carved but damaged. It probably belongs to the sixth or seventh century.

The scroll or cornice on the back wall of the outer veranda is divided by plain upright bands into panels about a foot square.

Beginning from the left or north end, in the first panel is a man seated on a couch with a woman beside him. In the next are the broken figures of two men. In the third, from the left come an elephant with two riders, a man running in front, and a man behind with a sword. From the right two men come running. In the fourth panel are an elephant and a crowned chief, who seems to give something to a man with an umbrella, perhaps a hermit. Beyond him are two or three hermit-like figures, one a woman. In the fifth panel a king lolls on a couch with one foot drawn up on the seat ; in front is a spittoon ; at the sides are two women, four seated men, and four women, one with a garland. In the sixth panel, a chief drives in a horse chariot, and a man of rank comes to meet him ; behind are some men, one a musician and one a dwarf. In the seventh panel is a (broken) chariot with two children, and figures bringing something which is broken. In the eighth panel, in the left, are a woman with a child and something in her hand, a man of rank, then three men of rank with fine head-dresses ; then a woman and two children ; then two men standing. In the ninth panel two men sit in the centre, one with his hand on his chin, the other with his chin on his knees ; in the left are two broken standing figures. The next panels are lost. Above the right pillar the frieze can again be deciphered. In the first panel are broken figures in the left, perhaps musicians, then attendants, and, in the right, a woman seated on a chair, with a toilet-case. In the next a central figure, a man of rank perhaps the chief's son or his minister, seems to be called by a mace or spear-bearer perhaps to go to the chief. In the next, the central figure of the last panel is seated before the chief ; another man is seated in front. In the next is the spearman, a woman with a child, and a chief on a couch ; the rest is broken. In the next a woman lies on a couch, surrounded by twelve women-servants. In the next a man, either a chief or a monk, is seated in the centre ; near him a man seems to be driven away ; people sit or stand about. In the last a king and queen are seated, the queen with a child in her hand ; about are women-servants and a dwarf.

The veranda faces nearly south-west. Like most Buddhist caves it has a fine view up and across the little glen, and, to the south, over the lake and wood of Lonad, level rice lands with few trees and some ranges of low hills, across the Kalyan creek, to the dim picturesque crest of Malanggad, Tavli and Chanderi.

MAHULI FORT

Mahuli Fort, on the hill of the same name 2,815 feet (857·612 metres) high, is in Shahapur taluka lying about six and a half kilometres north-west of Shahapur town. Towards the south end of the hill-top is

a huge cleft, probably 700 (213·360 metres) or 800 feet (243·840 metres) deep, in which stand some gigantic basalt pillars. The old ascent was from the east by the Machi village. The gateway which stands at the head of a very steep ravine, and the battlements along the crest of the ravine are now mostly in ruins. The fortifications are said to be the work of the Moghals and on the top are the ruins of a place of prayer and of a mosque. As in Takmak, Malanggad and other Thane hill-forts, a sheer precipice of black basalt from 500 (152·410 metres) to 600 feet (182·880 metres) high runs almost all round. Towards the south a small cleft runs right across the hill which was said to have been used as a dungeon. It was impossible for the prisoners to climb the sides as to jump down at the end was certain death.

The following are the details of Captain Dickinson's survey in 1818. It is the loftiest of the Thane forts on a hill more than 2,500 feet (762 metres) high. The hill has three fortified summits—Palasgad on the north, Mahuli in the centre and Bhandargad in the south. Mahuli, the middle peak, is the largest of the three, being upwards of half a kilometre long by nearly as much broad, with a plentiful supply of water and in many places fine soil. The ascent is throughout steep, the latter part up a very difficult and rugged ravine. At the head of the ravine stands an exceedingly strong gate-way, flanked and covered with towers, the work being continued for some distance along the brink of a stupendous precipice. On a rising ground on the top of the hill, a little beyond the gate-way, is a little redoubt called Parthalgad, very low and out of repair. The other two forts, Palasgad to the north and Bhandargad to the south, can be reached only up the heads of narrow ravines which separate them from Mahuli. From the country below, Palasgad alone is accessible. In Mahuli and Bhandargad there were a few buildings which required a little repair while Palasgad and other works were rapidly falling into decay. In Captain Dickinson's opinion the fort was untenable. In 1862 it was very much dilapidated. Time, indeed, has wiped off almost all traces of fortifications. The top of the hill is covered with myrobalan and other trees and recent plantations by the forest department. The fort is often visited by adventurous parties of hitchhikers.

Mahuli seems to date from the time of the Shilaharas. In 1485 along with other Konkan forts it was captured by Malik Ahmad, who afterwards became the founder of the Nizam Shahi dynasty of Ahmadnagar. In 1635 Mahuli surrendered to Shahaji Bhosle and here Jijabai, the mother of Shivaji, occasionally took refuge with her son. In 1636 Shahaji, with his puppet Nizam Shah, was tightly cornered in this fort by Khan Zaman and Randulla Khan and finally surrendered to Randulla in October of that year on honourable terms. In 1661 it was taken by Shivaji though defended by a Rajput garrison. Shivaji was

obliged to surrender the fort to the Moghals under the terms of the treaty of Purandhar in June 1665 ; but in 1670 after a serious repulse and a siege of two months it was re-captured by Shivaji's *Peshva* Moro Trimbak Pingle. The Treaty of Pune of June 1817 saw the English the masters of this formidable fort.

MAJIVADE

Notified for the first time as a town as per the Census of 1971, Majivade is a non-municipal town in Thane tahsil. The town covers an area of 8.55 square kilometres and has a population of 22,126 souls, as per the Census of 1971. Of the total population of the town, as many as 6,429 persons were engaged in manufacturing in the category of other than household industry. The town is divided into fifteen wards and twenty-six blocks.

Located at an altitude of ten metres, the town receives an average annual rain-fall of 2,477.5 mm. the maximum and the minimum temperatures being 37.0°C and 20.0°C, respectively. The town is located at a distance of six kilometres from Thane, the head-quarters of the district and the tahsil in which it is located. It is well served by the State Transport buses.

The total length of roads in the town admeasures a meagre 0.90 kilometres, of which two-third is a *pucca* length. The town is served by open-surface drainage, night-soil being disposed of by trollies. Wells form the main source of water-supply to the town population. The town has been supplied with electricity and, as per the Census of 1971, there were in the town 53 domestic connections, fourteen industrial connections, 69 commercial connections, six other connections and two road-lighting points. Medical facilities to the town population are provided by one dispensary and a maternity centre alongwith private medical practitioners. One primary school and one secondary school cater to the educational needs of the town populace. One public library is also located in the town. In the town is functioning one bank.

The most important commodities manufactured in the town are packing papers and wrappers, pharmaceuticals and cables.

MALANGGAD OR BAVA MALANG

Malanggad or Bava Malang, also known as "Cathedral Rock" from the broken outline of its basalt crest, was once a strong hill-fort, and among Thane hills one of the most picturesque and the most difficult to climb. Lying approximately ten miles south of Kalyan and

connected by a regular bus service upto its base from the Kalyan railway station, it has grown into a major centre of pilgrimage for people of all castes and creeds. Everyday, all the year round, and especially on Thursdays, Sundays and holidays, the stream of pilgrims is endless.

The oldest name connected by tradition with Malanggad is that of Nala Raja who is said to have lived on the hill about 800 years ago and to have improved the ascent by laying down a line of iron straps. During his reign, Haji Abdul Rahman, an Arab missionary, arrived with a number of followers and settled on the lower plateau of the hill. To test his sanctity Nala Raja sent his lovely daughter to the holy man. The recluse stood the test. He took the maiden on his knee and she was to him as a daughter. Convinced of his virtue, Nala Raja gave him the girl in marriage, and to this day she shares her husband's glory and sanctity. According to some the tomb next to the Bava's is that of his adopted daughter, but the pilgrims refer to it as the tomb of Masaket. Six hundred years and more passed, and the fame of Haji Abdul Rahman was still at its height when the English made their appearance in Kalyan. As they stayed only for two years (1780-82), their departure was ascribed to the power of the saint and as a thanks-offering the *Peshwa* sent to the shrine a pall of cloth of gold trimmed with pearls and supported on silver posts. Neither this cloth nor the supporting silver posts are found in the tomb today. This gift was brought in State under the charge of Kashinath Pant Ketkar, a Brahman of Kalyan. Bare-headed and bare-footed, accompanied by a large number of followers of all castes and creeds, Kashinath went in procession from Kalyan up the hill to the tomb, bearing the *Peshwa's* thanks-offering. Moved by the sight of the dilapidated tomb, Kashinath determined to repair it. A difficulty about the masonry was removed by the saint, who, without the help of men, quarried and dressed the handsome blocks which cover his tomb. This is how the Ketkars became the managers of the Bava's *dargah*. The Kalyan Musalmans headed by one Hydad, the hereditary guardian of the tomb, did not acquiesce in Brahman management. In 1817 the dispute was taken before the District Collector who ordered that the will of the saint should be determined by casting lots. Lots were accordingly cast and three times the lot fell on the representative of Kashinath Pant, who was proclaimed the guardian. Recently the battle was taken right upto the Supreme Court which decided that the office of *vahivatdar* or manager should be hereditary in the Ketkar family. Gopalrao Krishnaji Ketkar, an adopted descendant of Kashinath Pant, has been the *vahivatdar* since 1937. A mausoleum, with a huge dome and silver-plated doors, has been constructed over the tomb. Every May since the time of Kashinath Pant there has been a yearly pilgrimage

and fair. On the February full moon, (*Magh Shuddh pournima*) *urus* attended by over two lakhs of devotees, Hindus, Musalmans, Parsees, Christians and others, is celebrated.

On the night of the fourth of August 1780, a body of British troops from Kalyan, under Captain Abington, surprised Malanggad and succeeded in taking the lower hill, but the garrison made good their retreat to the upper fort. A body of 3,000 Marathas cut off Abington's communication with Kalyan exposing him to the attacks of the garrison from the upper fort. Early in October Colonel Hartley arrived from Bombay and was joined by a corps under Captain Jameson near Malanggad. The garrison was also reinforced and taking a position to the south-east of the hill began to lay waste the country. Colonel Hartley, after relieving Abington on the 1st of October, advanced upon the Marathas, who retiring towards their camp, were surprised and put to flight by Captain Jameson's corps. However the English did not hold on to Malanggad for long. They retired in 1782. After the cession of the Konkan to the English in 1817, Malanggad held out for some months. It was escalated in January 1818 by a small force under Colonel Kennedy with the loss of one seaman killed and nine or ten *sepoys* wounded.

As has already been mentioned, Malanggad is most easily reached across a tar-topped road from Kalyan. Like most of the chief Thane hill-forts, it rises in a succession of bare stony slopes, broken by walls of rock. From the base almost to the tomb of the Bava, masonry and *kuicha* stone steps have been laid by some of his devotees to facilitate the climb, the entire route being flanked by huts of the beggars who pester the pilgrims and to propitiate whom, it is believed, is to invoke the blessings of the Bava. At intervals along the path and on the saint's plateau, numerous restaurants, sweetmeat and flower shops have sprung up catering to the needs of the pilgrims. An easy non-stop climb of about twenty minutes brings the pilgrims to the first stage marked by the tomb of Bokhtiar Baba who is believed to have tried to ascend the hill before Syed Abdul Rahman. A further climb of another fifteen to twenty minutes ends in a wide, once richly wooded plateau, the path leading to the tomb of Bava Malang, the holy man of the Malang school of Musalman ascetics. Before reaching the Bava's tomb the pilgrims do not forget to pay their respects to the tomb of Sultan Shah Baba, a disciple of the great saint. At a short distance, to the left of Sultan Shah's tomb is a recently-installed Shiv *ling*. The plateau slopes upward to the base of a great comb backed rock from four to five hundred feet high. From the slopes at the back of the plateau, a flight of rock-cut steps in fair order and nowhere less than three feet wide, climbs a long narrow arched ridge about three hundred feet up to a small level space which forms the lower fort of Malanggad.

This is a fragment of one of the level belts or terraces as it were a step between the saint's plateau and the crest of the rock. It is bare of trees and badly supplied with water, and nothing is left of the fortifications save a broken gateway, a low ruined parapet wall and the sites of ruined dwellings. From the west end of this shelf of rock a flight of rock-cut steps climb, in irregular twists and zigzags about a hundred feet up the face of a sheer cliff. The ascent begins with a sharp turn and a breast-high step and above there is much difficulty and some risk. The ledge up which the steps clamber is not more than twenty inches broad in some places, and Captain Dickinson's blasting was so thorough that now and again, hand and foot holes have had to be cut for the help of the pilgrims. On one side the cliff falls in a sheer wall of about a hundred feet and then slopes sharply with clumps of trees, patches of bleached grass, and lines of broken borders, two or three hundred feet further to the saint's plateau. On the other side rises a bare overhanging rock and neither in front nor behind are there any clear signs of a path-way. The steps end in the upper fort, a level ridge about fifty yards by twenty, bare of trees except one old *umbar* or hill-fig, but full of ruins, old cisterns and the sites of buildings. On reaching the top the pilgrims have three duties to perform, viz., to wash their hands and feet in the large cistern, gather and eat some *umbar* figs, and to cast a stone at the pinnacle of rock that rises to the south-west across a cliff about twenty yards broad. To the pilgrims this pinnacle is known as *Balahamsa*. On a clear day the hill-top commands a splendid view much like the view from Panorama point of Matheran hill except that close at hand the rocks of Malanggad itself and of its neighbours, Tavli and Chanderi, look wilder and more desolate, and that in the far south-east, the Sahyadris are hidden behind the long ridges of Matheran and Prabal. To the right of the Bava's *dargah*, at a distance of five minutes walk, is a perennial spring known to his devotees as the *chashma*. The pilgrims sip the holy water and carry it home as *tirth*. About two miles further are five *kabars* or tombs of the five great servants of the Bawa and are called as *Panch pir*.

The following are the details of Captain Dickinson's survey in 1818 :- The fort is reached after climbing a perpendicular height of about 700 feet. Connected with the base of the hill is a forest-covered tableland upon which is the Bava's tomb and a few huts for the use of the garrison. From this tableland the ascent to the lower fort is very steep and upwards of 300 feet high. The latter part of the ascent is by an almost perpendicular rock-hewn staircase, at the top of which is a strong gate-way covered by two outstanding towers, which even with the smallest garrison, make the place impregnable. Beyond this gate-way, the lower fort is nothing more than the summit of this part of

the hill, an exceedingly narrow strip not more than 300 yards long. The precipice which surrounds it is in most cases a complete natural defence and all spots which could offer a footing to an assailant have been strengthened by masonry. The lower fort contains only two scarcely habitable buildings and a small reservoir, giving a sufficient supply of water during the greater part of the year. From the lower to the upper fort there is a perpendicular ascent of 200 feet by means of a narrow flight of rock-hewn steps on the other side of the hill, on the face of a precipice so steep as to make the ascent most difficult and dangerous at all times. The upper fort, a space of about 200 yards long by about seventy broad, is nothing more than the top, as it were of the third hill. It has no fortifications, but there are traces of an enclosure and of the walls of an old building. The water-supply is from a range of five cisterns, and a copper pipe is used to carry water to the lower fort, as its single cistern used often to run dry.

MALYAN

Malyan, a town in Dahanu tahsil, is a non-municipal town located at a distance of four kilometres from Dahanu, the head-quarters of the tahsil in which it is located, its railway station being Dahanu Road. Located at an altitude of nineteen metres, the town gets an average rain-fall of 2,511.0 mm. with maximum and minimum temperatures being 35.5°C and 24.5°C, respectively. The town with a population of 7,519 as per the Census of 1971, covers an area of 2.31 square kilometres and is divided into thirteen blocks. The town has 992 occupied residential houses with 1,378 households. Of the total population 1,457 belong to the scheduled tribes.

The total length of roads in the town admeasures 3.62 kilometres of which a length of 1.40 kilometres is metalled. The town is served by box-surface drains, night-soil being removed by head-loads. Wells form main source of water-supply to the town population. The town has been supplied with electricity with 1,036 domestic connections, 129 industrial connections, 494 commercial connections, 83 other connections and 143 road-lighting points. The medical facilities to the town population are provided by one hospital with 110 beds and six dispensaries. Four primary schools and a middle school cater to the educational needs of the town populace. Entertainment facility is provided by the only theatre in the town. Besides there is one public library.

It is a manufacturing centre of rice mill machinery, plastic bangles and balloons. There are three banks and two non-agricultural credit societies in the town.

MANDVI

Mandvi is a small village in Bassein taluka located at a distance of twenty-four kilometres to the north-east of Bassein below the northern spur of the Tungar Hill. The village covers an area of 161.470 hectares and has a population of 315 souls, as per the Census of 1971. The village has been supplied with electricity and has facilities for primary education. Medical facilities for the village populace are provided by a public dispensary. Wells and tank form the main sources of water-supply. The village has a *pucca* road and is connected by the State Transport.

The village must have some historical importance as it lies on the old trade route from Sopara up the Tansa Valley to the Thal pass. Among the inscribed stones in the Collector's garden at Thane there is one from Mandvi. It records a grant by a Shilahara king, but is much worn and hard to read. The old *Thane District Gazetteer* mentions that it had a picturesque ruined convent and a Portuguese fort.

MANIKPUR

Notified as a town for the first time as per the Census of 1971, Manikpur is a non-municipal town in Bassein taluka located at a distance of 135 kilometres from Thane, eight kilometres from Vasai and one kilometre from Vasai Road railway station, on the Western Railway. The town covers an area of 4.15 square kilometres and has a population of 7,610 souls, as per the Census of 1971. The town is divided into eleven blocks.

The total length of roads in the town admeasures seven kilometres of which *pucca* roads are to the extent of four kilometres. The town is served by open-surface drainage, night-soil being removed by hand-carts. Wells form the main source of water-supply to the town population. The town has been supplied with electricity and according to the Census of 1971 there were in the town 1,170 domestic connections, twenty industrial connections, 74 commercial connections, one other connection and one road-lighting point. One dispensary and few private medical practitioners cater to the health needs of the people. Educational facilities are provided by two primary schools and one high school. Located in the town are one bank, one agricultural credit society and three non-agricultural credit societies. It is a manufacturing centre for optical frames and wooden furniture.

MANOR

Manor, with a population of 3,988 as per the Census of 1971, is a village in Palghar taluka on the Vaitarna lying about sixteen

kilometres east of Palghar and 9.6 kilometres east of Asheri. The village covers an area of 705.367 hectares. Located in the village are two primary schools and a high school that cater to the educational needs of the village populace. Medical facilities are provided to the village population by one dispensary, a health centre and a family planning centre. The village has been supplied with electricity. Wells, river and tanks form the main sources of water-supply. A post office is also located in the village. A weekly market is held at Manor on every Saturday. The village has the branches of the Thane District Central Co-operative Bank Ltd. and Bank of Maharashtra. The Government rest-house provides lodging facilities to Government officials on duty and to the travelling public.

The Vaitarna is tidal at Manor and boats of five tons could pass to the landing place in ordinary tides and boats of ten tons at springs. At present no port facilities are available at Manor and there is no trade as such. Formerly it was a centre for trade in wood.

Under the Portuguese Manor was the head-quarters of a district or *pargana* with forty-two villages and one sarretor. The fort of Manor is mentioned with that of Asheri as two of the chief Portuguese strongholds in North Thana. De Couto speaks of Manor as a fort which with Asheri gave the Portuguese command of a rice-yielding country. In 1515 the Commandant of Manor was ordered to supply a galley every year. Some of these references may refer to the fort on the Asava hill. But there is also at Manor a small hill or eminence with a bungalow like a fort in appearance and a cistern.

In 1634 it was described as round about the size of a two-storeyed house, the roof of the upper storey resting on pillars. In the lower storey were two large balconies supported on pillars for the defence of the towers. There was a good store of lead and gun-powder, five pieces of ordnance, seventy muskets, thirty iron balls, and thirty torches. Close to this fortified house was a stockade about three quarters of mile round, with a tower in the middle and a settlement of twenty Portuguese families, twenty-three native Christians and eighty Hindus and Musalman archers. The place had been fortified to protect Portuguese territory from the Ahmadnagar kings, from the Kolis, and from Chautia. The captain of the fort farmed the revenues of the district which amounted to £ 602 (16,072 *pardaos*). In 1728 the fort is described as on a rock, the walls not higher than an ordinary mansion, and from its position, form and weakness, unworthy of the name of a fort. It had eight pieces of ordnance, five of them useless, and garrison of 104 men and three corporals.

An *urus* and a *Hanuman Jayanti* fair are held at Manor. The *urus* is held in the month of January when about 700 people mostly from the village proper, assemble. The congregation during the *Hanuman*

Jayanti fair comes to 500 and the fair is held in March-April. Both the *urus* as well as the fair are of local importance.

MHASE

Mhase is a small village in Murbad taluka about 9.6 kilometres to the south of Murbad. The village is famous as the site of an annual fair, supposed to be the oldest in the district, held in honour of God Mhasoba or Khamb Lingeswar, a name given to Lord Shiva. The fair formerly used to be held from *Pausha Shuddha* 1. Now it commences on *Pausha Shuddha* 8 and lasts till *Pausha Vadya* 30, i.e., *amavasya*, the important days of the fair being from *Pausha Shuddha* 15, i.e., *Purnima* or the full-moon day to *Pausha Vadya* 10. The fair is more important as a cattle market than as a religious gathering. The total congregation during the duration of the fair is estimated to be more than fifty thousand.

As has already been mentioned, Mhase is a small village covering an area of 783.067 hectares with a population of 636 souls, as per the Census of 1971. Facilities for primary education are available in the village. Medical relief is provided by a dispensary conducted by the Zilla Parishad. The village has been supplied with electricity. Wells form the main source of water-supply to the village populace. The village is connected with Murbad by a fair-weather road. Badlapur, on the Bombay-Pune route of the Central Railway, is the nearest railway station to the village.

The shrine of Mhasoba comprises a room measuring 15' × 15' constructed in bricks and lime and plastered with cement. The roof is covered with country tiles. No spire or pinnacle is constructed to distinguish the shrine from other constructions. In the room a path three feet in width, is left all along the periphery for holy circuit and a wooden frame is constructed around the deity. Wooden pillars support the ceiling. The open space lying at the west of the temple, is used as an auditorium by constructing a temporary *pandal* on it during the period of the fair.

At a distance of about six feet to the east of the main temple and in a shed, the sacred bull, Nandi, made of marble stone is installed on a stone platform about three feet from the ground. To the south, at a distance of about fifteen to twenty steps, a trunk of a withered tree about 12' to 15' high is installed. This place is used for making vows.

There is no inscription or any literature regarding the period of construction of the temple. The local inquiry reveals that there was a small temple on the spot built more than 200 years back. The present structure is, however, constructed some 65 to 70 years back. It is said

that an armed party of dacoits under one Honaji Koli so ravaged the area that none could succeed in arresting them in spite of several attempts. One Ganpat Malharrao Bokad, a Mahadeo Koli by caste, and the then Inspector of Police, who was assigned the task of arresting the dacoit made a vow before the deity that he would build the temple if he was successful in his mission of capturing the dacoit.

On succeeding in his mission he built the plinth and the platform of the shrine in fulfilment of the vow. The upper construction consisting of the walls and roofs was added by the fore-fathers of the present priest.

At the centre of the shrine there is a space facing the north with a *ling* which was previously daubed with vermilion and called Mhasoba. Maheshwar, or God Mahadeo, is represented here by a *ling* "Mhasoba" which is a corrupt form of Maheshwar. Adjacent to the *ling* is a stone slab depicting small *lings* representing the fore-fathers of the present priest. These *lings* are also smeared with vermilion.

It is customary to make vows for the birth of a child in the household, getting relief from physical or mental suffering, prosperity in business, etc. The vows are made in the presence of a "Ghumarya" or "Warekari", Maratha by caste, who becomes unconscious when possessed by the God.

It is said that this fair is held for the last 200 years. It commences from *Pausha Sud.* 8 and ends on *Pausha Amavasya (Pausha Vad. 30)*. The principal days of the fair, however, are *Pausha Purnima* and *Pausha Vad. Pratipada*. Traders from different parts of Maharashtra attend the fair. The pilgrims are mostly from Greater Bombay, Thane, Kolaba, Nasik and Pune districts of Maharashtra State. They belong to various castes and tribes, prominent among them being Maratha, Agri, Thakur and Kokana. During the period of twenty-one days of the fair approximately 50,000 pilgrims attend the fair. Of these, more than half attend on *Pausha Sud.* 15 and on the following day, i.e., *Pausha Vad.* 1.

On *Pausha Sud.* 15 (*Purnima*) an *abhishek* is performed by a Brahman priest before sun-rise. Pilgrims come for *darshan* with coconut, flower garlands, *kumkum*, incense sticks and vermilion. On this day a "Ghumarya" or "Warekari" stands near the premises of the temple and people make vows before him about their desires.

On this day at about 7-30 p.m. two men belonging to Malhar Koli caste from Shidgad village, bring two bamboo poles called *kathya* about forty feet in height, wrapped up in cloth ten feet from the bottom of the poles, to this village in procession. Peacock feathers are tied at the top of the poles. The procession headed by the musicians playing on the instruments is received by the residents at the village boundary. The poles are carried through the village main roads and

worshipped by married women (*suwasini*). They are then brought before a *chauthara*, a square platform, which is said to represent Goddess Nagmata, believed to be the sister of Lord Shiva. The poles are worshipped here by the local priests. After worship the persons bringing two poles make three holy rounds around the *chauthara*, and the poles are then brought in front of the temple and installed there up to *Pausha Vad. 1*. The worshippers from Mhase village bring another pole decorated like the other two poles on *Pausha Sud. 15* and deposit it near the two poles. All the three poles are worshipped by the pilgrims. The first two poles are then carried back by the Malhar Kolis of Shidgad village on *Pausha Vad. 1* and the pole brought by the worshippers from Mhase is kept near the temple up to the *Pausha Vad. 30 (Amavasya)* and thereafter taken to the senior priest's house.

On the following day, i.e., on *Pausha Vad. 1 (Pratipadd)*, the ceremony of fulfilment of the vows taken last year, is held near the tree trunk installed at the south of the temple. Two old men from among the priests stand near the trunk. Those pilgrims who have come to comply with their promises to the deity, are dressed in a special dress, yellow *saris* for females and white shirts and white *dhoties* for males. The pilgrims worship the trunk of the tree and bow before it one after another touching their fore-heads to the ground. While the pilgrim is still in the bowing posture the two priests ask him/her whether his/her desire has been fulfilled, and after getting an answer in the affirmative they pierce an iron hook into the skin of the pilgrim at the back. The pilgrim then moves round the trunk three times with the hook in his/her skin. Many pilgrims weigh their sons and themselves against *gur* or sugar in fulfilment of their vows. The *gur*, sugar or sweets so weighed are then distributed as *prasad*. Some pilgrims sacrifice goats and cocks and give feast according to their vows. No cattle sale transaction starts before this ceremony is over.

The cattle market, held at the time of the fair, is one of the biggest in the State. It is held in the fields near the temple owned by private persons. The private landlords charge Rs. 2 to Rs. 3 for a plot of 10'×10' and in addition get Re. 1 per cattle sold. The sale of cattle starts on *Pausha Vad. 1*. Bullocks of Khillari, Dangi and Berad breeds are sold in large numbers. The Khillari breed from Junnar area is sold at Rs. 2,000 to Rs. 3,000 per pair of bullocks. The prices of Dangi and Berad breed range from Rs. 1,000 to Rs. 1,500 and Rs. 1,500 to Rs. 2,000 per pair, respectively. Horses from Junnar area and buffaloes from Khandesh are also sold in large numbers.

The open space between the temple and the low level ground is used for shops for selling flowers, coconuts and other materials for worship. Near about 50 thousand coconuts are sold during the period of the fair. The traders from Pandharpur attend the fair for selling

ghongadi (woollen blankets). Besides the local traders, traders from Ahmadnagar, Nasik, Pune, Kalyan, Bombay and Thane also attend the fair.

The sale of commodities during the fair is estimated to be 8 to 12 lakhs of rupees. A new cattle market is now functioning at Saralgaon in Murbad taluka and it has naturally affected the cattle market during the fair at Mhase.

The only items of entertainment during the fair period are cradles, merry-go-round, death-globe, etc. Three to four *tamasha* troupes also stage their performances. These programmes are attended by many pilgrims.

The Village Panchayat lays out plots from the village site which are leased to the traders at the rate of one *paisa* per square foot. The fee is collected by the Grampanchayat authorities. A pilgrim tax is levied by the Revenue department and is collected at the rate of twelve *paise* per adult and six *paise* per child between 6 and 15 years. The tax is collected three days prior to *Pausha Sud.* 15 and up to *Pausha Vad* 3. The villagers from Chirad, Boriwali, Kanhol and Mhase as well as Government officers are exempted from the payment of pilgrim tax.

No one knows the period of the inception of the deity. It is however said that the *ling* was found in a wooden pillar and hence the deity is called as "Khamb Lingeswar".

The Devasthan Trust comprising three priests from among the twelve households looks after the internal management of the temple and supervises the work at the time of the fair.

MOHONE

Mohone is a non-municipal town in Kalyan tahsil located at a distance of seven kilometres from Kalyan and 28 kilometres from Thane. The nearest railway station to the town is Ambivali. Classified under industry in the Census of 1971, Mohone is an industrial centre famous for the rayon mill. The town covers an area of 1.73 square kilometres and has a population of 11,344 souls, as per the Census of 1971, with 2,587 occupied residential houses and 2,641 households. Of the total working population of 3,837, as many as 2,986 males and 86 females were engaged in manufacturing other than household industry.

Located at an altitude of twelve metres the town gets an average annual rainfall of 2,355.4 mm. the maximum and the minimum temperatures being 34°C and 25°C, respectively. Of the total length of nine kilometres of roads in the towns, a length of only one kilometre is of the *kutch*a variety. The town is served by open-surface drainage, night-soil being disposed of by head-loads. The town gets protected water-supply through taps. The town has been supplied with electricity

and there were in the town as per the Census of 1971, 128 domestic connections, nine industrial connections, forty commercial connections, 132 other connections and one road-lighting point. Three hospitals, with a total bed strength of 150, cater to the health needs of the town population. Educational facilities are provided by two *balwadis*, two primary schools; one auditorium as also a public library are also located in the town. Of the financial institutions, there is one bank and one agricultural credit society in the town.

MURBAD

Murbad, the head-quarters of the taluka bearing the same name is located at a distance of about twenty-two and a half kilometres to the south-east of Titwala railway station and of about twenty-nine kilometres to the east of Kalyan railway station on the road from Kalyan to the Malsej pass. The village, which is fairly big, covers an area of 940.179 hectares and has, as per the Census of 1971, a total population of 6,316 souls. The village was the head-quarters of the sub-division named after the village in 1881 and had a population of 1,932 souls. The village has been supplied with electricity and gets its water-supply from taps and wells. Educational facilities to the village populace are provided by a number of primary schools conducted by the Thane Zilla Parishad and a high school conducted by a private institution. Dispensaries, a health centre, a maternity and child welfare centre and a family planning centre besides a few private medical practitioners cater to the health needs of the people. The town is served by pucca roads and is connected with Kalyan, Thane, Bombay and other places by the State transport buses. A Government rest house is also located in the village. Rice and *ragi* constitute the staple food of the village population. The village has a post office too. The offices of the Tahsildar and the Block Development Officer are also located in the village.

At the time of the publication of the old *Thana District Gazetteer* the place was growing, and contrasted well with the poor village, 'not able to afford a house or shed,' which Dr. Fryer found in 1675. Every square yard of available ground in the village site was built on then and more was demanded every year. On the night of the 10th December 1827 the village was visited by a gang of thirty-five robbers, who attacked the treasury and carried off £1,321 (Rs. 13,211). There was a good market and a large colony of Kayasth Prabhus. Many of the Kayasth Prabhus have now migrated to Bombay and other places.

There are in the village a number of temples. The temple, dedicated to Shri Rama, was built at the time of the *Peshwas* and was repaired

in 1866-67 by private contributions. The temple dedicated to Shri Ganapati was constructed by the end of the last century by public contribution. There are seven Hindu temples, of Shri Ram, built in the time of the *Peshwas* and repaired in 1866-67 by private contribution ; it enjoys a piece of land assessed at 14 s. (Rs. 7). Temple dedicated to Shri Mahadev was built by Ganesh Pant Patankar, the *Peshwa's* governor of Kalyan, and was repaired in 1880 by private contributions ; Shri Maruti's temple which was built in the time of the *Peshwas* was burnt in 1828-29 ; it was re-built by the late Govind Shamrav, *mamlatdar* of Murbad about 1831, and was repaired about 1860 by private subscriptions ; Shri Ganapati's temple built recently by private contributions is maintained by the Prabhu community, of the village. The temple dedicated to Shri Vithoba was built about 1865 by private contributions and is maintained by the people of the village. The temple dedicated to Shri Devi was built by private contributions in 1854-55, repaired in 1866-67, and maintained by the people. The temple of Shri Jarimari situated outside the village, was built about 1876. There are two reservoirs towards the south of the village, about sixty paces apart, the larger is known as the *Mothe Tale* or big pond and the smaller as the *Kund* or cistern. In the *Mothe Tale* are two wells, built in 1863-64 at a cost of £ 74 (Rs. 740), including the cost of clearing the reservoir. The water of the reservoirs is used for washing only and that of the two wells in the *Mothe Tale* for drinking from April to June, when almost all the village wells are dry.

An annual fair, in the honour of Shri Devi, is held in the village on the *Amavasya* day in the month of *Chaitra*, i.e. March-April when about 500 people assemble.

NALDURG FORT

Naldurg Fort located in the village of Narivli about 14·40 kilometres south-east of Murbad, was ruinous in 1862. There was no water. The fort is practically deserted and rarely visited.

NIRMAL

Nirmal or the stainless, situated at a distance of about 9·6 kilometres north of Vasai, is connected by State Transport to Nala Sopara railway station. It is regarded as one of the most sacred places on account of its having a much-venerated *linga* and it being, according to tradition, the place where stands the *samadhi* of one of the great Shankaracharyas, the apostle of the modern Brahmanic system.

The reference to Nirmal is traced in the *Skanda Purana* and in several local legends. The *Skanda Purana* mentions it as the best of the holy pools and the seat of perfection. He who repeats a sacred verse at Nirmal, and keeps away from sin gains seven crore fold merit.

It was considered as a place of supreme happiness to the righteous. *Trimbakeshwar Mahatmya* mentions it as the best *tirth* for gaining heavenly bliss. The legend of the forming of Nirmal as told in *Trimbakeshwar Mahatmya* describes a fiend named Vimal harassing Brahman seers who lived near the sacred Vaitarni and on his defeat by Parshuram taking to repentance and religious austerities. Shiv was so pleased with him that he blessed Vimal with immortality and holy spring on the Tungar hill. He was told that if he ceased to trouble the Brahmins he need fear no one in the three worlds. Despite this promise Vimal again began persecuting the Brahmin settlers and at their request Shiv sent Parshuram to bring him to order. Every time Parshuram cut off his hands and feet, they re-appeared with fresh vigour by the blessing of Shiv. Finding himself powerless Parshuram had resort to Shiv with whose help he eventually overcame the demon. Vimal then invoked Parshuram's clemency. He was pardoned and on the spot where he fell Parshuram established a *ling* which he called Vimalleshwar and raised a temple over it. From Vimal it became Nirmal or stainless since Parshuram rendered the place free from stains.

The name "Nirmal" might have been derived from the Dravidian word "*nir*" which means water and *mal* which means hill, the meaning in totality being the sea hill, which is a true description of the place being a wooded mound rising from bare flats once under water.

Nirmal is a small village covering an area of 41.672 hectares with a population of 745 souls, as per the Census of 1971. This electrified village gets its water-supply from wells and ponds. Located in the village is a secondary school. Medical facilities to the village population are provided by a dispensary conducted by the Zilla Parishad. As has already been mentioned earlier, Nirmal is a place with religious sanctity since olden days and is famous for its temples and a *samadhi* of Shankaracharya.

The principal objects of interest in the village are eight temples, all of which were built about 1750 A.D. by Shankraji Keshav, the Maratha Subhedar of Vasai. On a rising ground close together stand three temples, one dedicated to Shankaracharya Swami, another to Mahavishnu and the third to Vimalleshwar Mahadev which is a substantial building. All these temples enjoyed in the past and continue to enjoy annual Government grants for their maintenance and are managed by committees. To the west of the Nirmal lake is the shrine dedicated to Suleshwar which also enjoys an annual Government grant. To the east of the lake and by the side of the road there are three temples, dedicated to Ganapati, Durga and Hanuman respectively enjoying government grants and managed by committees. On the north of the lake is a temple dedicated to Sarveshwar Samba

which also receives an annual grant of Rs. 65 from the descendants of Shankraji Keshav. Formerly there were a Brahmin alms-house or *annachhatra* and a *bairagi's* alms-house which received Government grants. These State grants would show that these temples were constructed from public funds.

The stones of the older temples were used by the Portuguese in the construction of churches. The Portuguese had pulled down the old temples and destroyed the *ling*. On the capture of Vasai by the Marathas in 1739, Nirmal was purified, foot-prints of Shri Dattatraya as per the old *Thana District Gazetteer* and of Shri Parshuram as per the local tradition were installed in place of the destroyed *ling* and a reservoir or a lake was built. The lake has since been deepened and its waters are used for irrigating land.

Nirmal has a Portuguese church, named after Santa Cruz built about the year 1580. In 1856 the parishioners re-built the church at a cost of about Rs. 24,000. It is 96 feet long by 28 feet broad and has a height of 26 feet. A high school named Holy Cross High School with about 700 to 800 pupils on its roll is conducted by the church.

About 460 metres north of the chief temple, in front of a house, is a long dressed stone with some letters which appear to be a part of a Sanskrit inscription of the seventh century.

On the death anniversary of the eighth Shankaracharya Vidyashankar Bharati which falls on *Kartik Vadya* 11, a large fair lasting for about a week is held in honour of the Goddess. The fair is attended by about 6,000 pilgrims coming from Thane, Raigad, Bombay and Gujarat. The principal articles brought for sale are brass, copper and stainless steel vessels, dry plantains, sweetmeats, cloth and cattle.

PAMTEMBHI

A village in Palghar taluka covers an area of 849.436 hectares and has, as per the Census of 1971, a total population of 3,809 souls. The old *Thana District Gazetteer* has mentioned that in this village was a small sea-port of Navapur about 6.40 kilometres south of Tarapur. The sea trade returns for the five years ending 1878-79 showed average export worth Rs. 27,590 and imports worth Rs. 2,330. Exports varied from Rs. 11,690 in 1874-75 to Rs. 69,120 in 1875-76 and imports from Rs. 930 in 1874-75 to Rs. 450 in 1878-79. The importance of this port has dwindled considerably since then due to silting and is now used only by small fishing crafts.

PAROL

Parol is a very small village in Vasai taluka covering an area of 437.870 hectares. The village has a population of 661, as per the

Census of 1971. Lying about twenty-five kilometres to the east of Virar railway station on the Western railway on the east base of the Tungar hill, the village has the remains of four old Hindu temples, two of which are within its limits and two in the limits of the neighbouring village of Majivali about a kilometre south. At none of these temples worship is now performed. The two Parol temples called the temples of the big and the little pools or *Motha Tankya* and *Lahan Tankya* stand on the southern and the northern banks of a stream that runs down the steep side of the Tungar. In the bed of the stream, close to each temple is a pool from which the temples derive their names. The temple near the small pool is levelled to the ground which is strewn with fragments of carved stones. The big pool or *Motha Tankya* temple is about a kilometre further up the stream bed and is a little better preserved. The temple rises in a square block and in its roof a tree has taken root that threatens to ruin it. On the lintel is a Ganapati and in the back wall is a well-carved frame containing an image of a Goddess. Of the Majivali temples which are not more than a few metres south-west of Parol, one appears to have been the largest of the group. Its super-structure is gone and only the plinth and some of the steps remain. The stones and larger blocks that lie scattered around are finely cut though not so well chiselled as the Ambarnath stones. Among other sculptures the most note-worthy are large pieces of the handsome lotus flower ceiling, a few carved figures of a God and a Goddess, the goddess with an elephant on each side with their trunks forming an arch over her head and several pillar capitals with erotic carvings. Just a few metres away is another temple which is in utter ruins, the stones having been built into what seems to be a Portuguese granary or a store-house. A new temple dedicated to Nageshwar has been constructed in the village recently.

The village has a Gram Panchayat and has been electrified. Educational facilities to the village population are provided by a primary school conducted by the Zilla Parishad. It has a branch post office. Wells and tank form the main sources of water-supply to the village population.

PULU SONALA

Pulu Sonala, at the foot of the Nana pass about thirty-two kilometres east of Murbad, has several plain Brahmanical caves. They are situated on a scarp a little way up the hill side and have a westerly aspect. They do not appear to be of very great age and are poorly cut, only one having any pretensions to rank as a cave the remainder being rough cells much broken and dilapidated. There are a few figures in bas-relief but no good architectural details. The following

is a detailed description of the caves as given by Pandit Bhagvanlai Indraji :—

The caves are cut from east to west. Cave 1 ($38' \times 23'$) is broken and without sculpture. From the traces of partition walls there seem to have been four cells. Cave 2 ($22' \times 18'$) seems to have been a simple cell with a reservoir ($18' \times 7'$). In front of this cave are traces of an outer wooden roof. Cave 3 is a cell ten feet square with a veranda to the left and a gateway facing north-west. Cave 4 is a cell twelve feet square with the gate-way facing north-west and two rock-cut benches in its left and right corners. Cave 5 is a cell ten feet square. Cave 6, the best of the group, has a hall ($54' \times 38'$) with a central shrine and two side cells in the back wall. The roof is supported by six pillars. Of the two innermost pillars, the left has a sculptured image of the goddess Mahishasurmardini or the Buffalo-demon slayer, and the right has a similar figure of another goddess. The sculpture of the pillars is good, probably not later than the eighth century. In a recess in the back wall, where the object of worship is generally placed, is a pit about five feet deep. It was probably cut as a place to meditate in. The gate-way of this cave gives a good general view of the country at the base of the Sahyadris. Cave 7 is a cell ($13' \times 12'$); Cave 8 is a cell five feet square with a reservoir ($34' \times 28'$). Caves 9 and 10 are broken cells. Near Cave 10 is a cistern. Cave 11 is a broken cell. Today the caves are uncared for and have become the haunts of wild animals.

Pulu is probably the Pilee of the Russian traveller Nikitin (1470) eight days from Chaul on way to Junnar.

SANDOR

Sandor is a non-municipal town in Vasai tahsil located at a distance of four kilometres from Vasai and eight kilometres from Vasai Road railway station on the Western Railway. The town covers an area of 4.87 square kilometres and has a total population of 6,705, as per the Census of 1971. The town is divided into ten blocks.

Located at an altitude of 5.0 metres, the town gets an average annual rainfall of 1,911.5 mm. the maximum and the minimum temperatures being 32.4°C and 15.3°C , respectively. The length of *kutch* roads in the town admeasures 2.93 kilometres while that of *pucca* roads admeasures 3.00 kilometres, making a total of 5.93 kilometres. The town is served by open-surface drainage. Wells form the main source of water-supply to the town populace. The town has been supplied with electricity and as per the Census of 1971, there were in the town 381 domestic connections, six industrial connections, 28 commercial connections, 55 other connections and only one road-lighting point.

A dispensary and some private medical practitioners provide medical and health care to the town population. Educational facilities are provided by four primary schools and one high school. Besides an auditorium, three public libraries are also located in the town.

SAFALE

Also known as Sofale formerly, Safale is a railway station on the Western Railway, 72 kilometres from Bombay Central terminus of the Western Railway and about five kilometres north of Vaitarna river below the hill-fort of Tandulwadi. It is probably an Arab settlement of great age, perhaps one of those made by the Sabaeans about B. C. 300. The corresponding ports Safareb Hind and Sefarah-el-Zing seem to show that Safale was the Konkan terminus of the trade with the African coast that seems to date back to the pre-historic times. Abdul Fida (1320) mentions Sofala as a country in Africa and adds that Sofala was also a country in India. However, Abdul Fida's form of the name suggests that the Arab references belong not to Safale but to Sopara.

Located in Palghar taluka the village covers an area of 1,213.651 hectares and has, according to the Census of 1971, a population of 1,494 souls. The educational facilities to the village populace are provided by three primary schools and a high school. This electrified village gets its water-supply from wells and tanks. A primary health centre is located in the village. It has a post office also. Also located in the village are the branches of the Thane District Central Co-operative Bank Ltd., and Dena Bank. The trade of Safale has almost perished and now there is only a small trade in grass that remains.

SAWTE

Sawte a village in Dahanu taluka, has population of 712, as per the Census of 1971 and is situated on the Dahanu creek about ten kilometres to the east of Dahanu, the taluka head-quarters. The village has been electrified. Wells form the main source of water-supply. Facilities for primary education are available in the village. It has a landing or *bundar* which was a large and important place of trade before the Government stopped free cutting of the forests in its neighbourhood and before the approach to the landing was blocked by the bridges when the railway was built. It is said that ten thousand carts were employed in the Sawte timber trade, and from three to four hundred booths were set up as lodgings for the timber merchants.

Sawte is probably the sarceta mentioned in Portuguese records of the seventeenth century as the seat of a Hindu chief called Jadi,

perhaps Jadhav or Yadav of Thana. In 1617 the Portuguese entered into a treaty with this chief, agreeing to defend Sarceta fort with Portuguese troops and prevent the Bagulos or people of Vergi from entering Daman.

SHAHAD

Shahad, a village in Kalyan tahsil now included in the urban area of Ulhasnagar, is located in $19^{\circ} 10'$ north latitude and $73^{\circ} 10'$ east longitude and is a railway station on the Central Railway. Of late, the village has come to prominence due to the growth of the industrial complex around it, the refugee camp and the magnificent temple of Vitthal constructed recently by the Kalyan Charity Trust and popularly known as Birla Mandir.

Vitthal Mandir, Shahad : An excursion stroll from Shahad Railway Station by an uphill country lane towards Ulhasnagar takes one in front of the huge gate of the famous Century Rayon Campus. Shahad *gaathan* assumes a small table plateau at the foot of 27.432 metres high hillock in front of the Century Rayon. A *vishramdham* built in Rajasthani style, is also situated at the foot of the hill. A further uphill stroll along a staired path-way towards the top of the hillock ends in front of a decorative monumental arch-way. This arch-way is called "Pratoli" which leads to the huge court-yard clustered with pleasant turfs and stone path-ways. On this pleasant court-yard stands the "Devprasad" very much in the centre and facing north. To the east on an elevation treasured in the cluster of Ashok trees is Girivihar and the residential colony of the Century staff. The panorama consists of Ulhasnagar camp, Shahad railway station and beyond that vast hinterland of Kalyan City and on the slope of this hillock stands the Shivaji Udyan and Balodyan, all on the west. A small train of two bogies worked on diesel is another attraction for children. Beyond the small railway track, in the *gaathan* area, is a temple of Ram, Laxman and Sita. Bluish mounts of Hajimalang and the Ulhasnagar colony keep company to this monument on the south.

A gem in stone in the midst of this envious riverside chunk is the "Vitthal Mandir".

One rarely comes across a work in architecture of monumental dimension as this, after the golden age of the pre-historic days of Chalukyas, Rashtrakutas, Pallavas, Pandyas, Solankis, Parmars, Chandelas and the like. These great clans, however, have reared for the posterity an envious heritage in the form of a number of architectural specimens. Rajputs and Moghals represent a different style in the succeeding period in mediaeval ages.

The Devprasad is constructed after Solanki's royal temple style, and decorated with Abu Dilwara Jain styled wavery stone garlands. The hemispherical ceiling is clustered with meticulous engravings. The construction of pillars resembles a Ghatpallava style of decorations of *stambha*, *stambhalat*, *stambhabaithak* and *stambha-shirsha* of Somnath temple. The rhythmic postures like those in Konark Sun temple, the representation of traditional Shrinagar Nayikas-like articulations are remarkable.

The South is represented in ceremonial costumes, in sculpture standing at right of outer *chatushtikas*, in images prototype of *devangana* in Ramaswamy temple sculpture, in Rastrakuta's Vellore temple styled *Ardhanari Nateshwar* of the world fame.

Khajuraho's art of Chandelas is represented in expressive body gestures of *devangana*. Vaishnav tradition is represented by Desavatha sculpts and Shaiva tradition by Shiv Parvati *Panigrahana*, *Nateshwar*, *Yogshiva Nataraj* and *Bhikshatan Shiv* etc., Shakti cult in *Mahishasurmardini Mahakali Parvati* and in sixty-four Yoginis postures. Buddha cult artistically composes itself with Vaishnav cult through Buddha Avtar Buddha Pravachan Pannels "Kudu" ornamentation. Jain cult correlates itself with hemi-spherical ceiling of famous Dilwara temples and decorations of wavery lines of stone garland on *chatushtikas* resemble Jain style of Abu monuments.

Balanced figures of *Deva*, *Devangana*, *Devaganas* are artistic. Hair styles of *devaganas* are attractive, different and vivid. Hair styles of *devanganas* are special in that there are no crowns but the hair are so styled as to look like some head-dress. Actually the ornaments *shirobhushanas* are worn by gods only. Accessories in ornaments are also multifarious, traditional arms used by gods and goddesses, their *ganas*, their body particulars are striking as they are harmonious.

This temple sculpture is decorated with replicas of beautiful images with mood expressions and with arrays of ornamental pillars. The walls are in reality the art galleries feasting the sensitive eyes of the on-looker. There are dancing damsels, *mridangi* in action, sensuous damsels playing on *manjiri* in rhythmic postures, fickle and agile, blowing the flutes.

Sculpture : Pratoli bears the bold images of Shri Vishnu Laxmi and Shri Vishnu's vehicle, a benumbed eagle in high relief. Solid conspicuous mass on the pillars on both the sides are decorated with wavery stone garlands. The stone garlands by their waves at once catch the eye. The pair of pillars bear two half feet tall images of sentinels (*pratiharas*) which form an essential feature of sculpture. A note-worthy feature about these sentinels is that they are at eye level of the on-looker standing in front of the arch-way. The pillars facing the temple bear images of smiling, strikingly beautiful women, carrying utensils of worship. These two dames are stationed there to distribute the flowers.

At the end of stairs leading to the temple there is *tandur* stone pathway crossing through the turf carpet. The entire ambulatory is also paved with *tandur* stone. There is access to Devprasad through Sambharana. This Mandir Prasad supports three marvellous pinnacles amidst three small sub-pinnacles. Besides, there are three stelae housing the principal deities. This temple is erected after the system called *Panchpad garbhagrih vastu* in the science of architecture. On an eight feet plinth on the surface plane admeasuring $250' \times 150'$ stands the Devprasad, admeasuring 115 feet north-south and 60 feet east-west. It is erected after a particular style known as Tilak Sagar.

A vast *goodh mandap* admeasuring 1,400 square feet ($37' 5'' \times 37' 5''$) is a square expanse the side with a height of 40 feet and the admeasuring 650 cubic feet tower with hemi-spherical ceiling has nine sides. This tower bears designs consisting of very minute engravings. A frontaly ornamental tower is the renowned feature of this work of art piece. The first lay within the cavities of these towers are called *Roopkunda*. On either of the flanks of this *Roopkunda* hover six *Vidhyadharas* in six different styles. The *goodh mandap* rests on thirty-two artistic pillars.

There are five entrances to enable entry from the *mandap* facing stela leading to the front portion of the assembly hall, in addition to one each on the east and west. These marble entrances bear very artistic engravings. Near the east and west entrances are *shringar chowkis* (portico) *chatushtika*. The pillars bear the subtle decorations that lend a remarkable harmony to the congregation. The walls of the stela and the assembly hall are built in marble and peeping pillasters.

The three idols of the chief deities in the stelae comprise Devugul and Mata Bhuvaneshwari and life-size idols of Vitthal-Rukmini in black marble, while the couple, viz., Laxmi-Narayan and the Mata Bhuvaneshwari are in snow-white marble.

An inner quadrangle chamber adjacent to the stela admeasures $37.5' \times 6.75' \times 12.25'$ high. This inner chamber is called *Antarala* a reserved place for the priests to move about. The *Sheshashahi* Vishnu-Garud, Laxmi and Brahma erupting from naval, lotus seated Laxmi so also meditating Shiva statues chiselled out of stone. On either side of the entrances of principal stelae are the images of Vaman and life-size statues of Jay and Vijay. In the centre of the ceiling are sculpts of *Navgraha* and at the sides are sculpt panels, which bear a scene from the *Mahabharat*, viz. Arjuna's chariot in-between two rival forces and image of Lord Krishna imparting knowledge, image of Buddha imparting knowledge to his disciples seeking *Dhammopadesha* of *Nirvana*, the author-poet of the *Mahabharat*, Maharshi Vyas and Lord Gajanan as his clerk and author-poet of the *Ramayana*, Valmiki and

songsters Lava and Kusha, the twin sons of Shri Rama. Besides the pre-historic images and idols of the immortal heroes of the past, are the figures of present-day national leaders.

The assembly hall and stela walls are also called *Mandovars*. The lower layer of *mandovar* holds presentable *kirtimukhas*.

This *mandir* is erected with five-layer pulpit. This pulpit is named as *Kamadpith*. *Nagar shilpa* includes these sorts of pupils.

Portion over the *kamad* pulpit upto the ceiling is called *Mandovar*. *Mandovar* art is constructed in various tiers, *Khurak*, *Kumbhak*, *Kalasha Antarala*, *Keval Manchilca*, *Mandovar* being called *Jangha*. The *Jangha* is a place that holds images exhibiting friezed incarnations of moods. *Jangha* here holds images of *Deva*, *Devangana*, *Devi* and *Dev ganas* and *Tapasas* in fantastic murals. The layer immediately above the *jangha* is called *Udgamastar*. *Bhavnistar* succeeds it upwards still on top of it *Mahakanval* which is further crowned by *Kangaristhar*. Then comes *Antarala* and finally the ceiling, the stela and the integral portion of the upper floor. Here what is called *Devadi* exists and near about are *Kumbhak*, *Kalasha* and *Antarala* etc. On the upper layer an extra *Jangha* again holds images of gods. The upper storey again holds another set of *Mandovar* on the stela and over the second layer of *Gavakshas* on the right flank of *jangha* stands the pinnacle. This set of twenty-one sub-pinnacles and twelve *tilak* comprises the *mahashikhar*.

Jangha lower to *mandovar* holds beautiful window-frames laid with subtle ornamental carving. This has images of Vishnu in his ten incarnations.

On either side of the assembly hall on the east and the west *chatushtika* (portico) contain the comfortable seats on the balustrade stand, a specious *devdi*. On the upper region there is the *Rajasena* which supports the *Asana*. The seat in the *Sajja* holds multifarious decor all over. *Natya mandap* admeasuring 41'×41' approximately is also exquisite. This *Natya mandap* has entrances on three sides, i.e. to east, west and north. On all the four sides are arrays of pillars, 32 in number and 6'6" in height. This is an open *Natya Mandap*. The inner singular line has four pillars, the rest have developed an octagonal formation. The *stambhashirsha* (pillar top) of the pillars 1 to 4 are carved like blooming petals of lotus flower. Remaining pillars however are simple. In the centre the pillars support a hemi-spherical *Naupad*—nine petal *gumbaj*—which is a technical expression of the formation. This whole structure admeasures about 1,100 square feet. At the centre rest the *Shringar chowkis*. There are similar *shringar chowkis* on both flanks of this centre. These *trishtas* or *shringar chowkis* are 5'×10'×15' in dimension. The entrance on the northern *Shringar chowki* holds what

is termed as *Sambharana* in sculpture. On the top, this *sambharana* are the sub-pinnacles or shallow *Gumbaj*. In the eye-hole a statue of Ganesh in marble exists and on the arch is seen the replica of Elephanta-fame *trimurti*. This proportionate replica in round sculpture is pleasant to look at. On the top of the east and west *chowkis* are existing shallow *gumbaj*.

The pillar compositions of the temple are artistic. There are in all 76 pillars. The *stambhalat* and *stambha shirshas* are decorated with ornamental bells hung on the balustrade joining them on the border lines. On the pillars, images of *Dev*, *Devi*, *Diggals*, *Shiva* are stationed. Pillars on *chatushtika* are ornamental with wavering stone garlands. These garlands hold subtle curvatures which have enhanced the beauty of the temple.

SHAHAPUR

Shahapur, the head-quarters of the taluka bearing the same name, lies on the Bombay-Agra road about 86.905 kilometres to the north-east of Bombay and about 2.5 kilometres from Asangaon railway station, formerly known as Shahapur railway station. The town stands on the banks of a perennial stream of the Bhadangi, a feeder of the Bhatsa river and about eight kilometres from the foot of the Mahuli fort. The town covers an area of 6.79 square kilometres and has a population of 7,887 souls as per the Census of 1971. Located at an altitude of 53.0 metres, the town gets an average rain-fall of 2,588.7 mm. with maximum and minimum temperatures at 34.0°C and 25.0°C, respectively. It is well connected by the Road Transport buses to the nearby towns of Bhivandi, Kalyan, Nasik and other rural areas.

The total length of pucca roads in the town admeasures 3.40 kilometres. The town is served by open-surface drainage system. night-soil being disposed of by head-loads. The town gets protected water-supply through service reservoir with a capacity of 1,49,820 litres. Additional source of water-supply is provided by the numerous wells. However, the town often feels acute scarcity of water especially during summer season. The town has been supplied with electricity and as per the Census of 1971 there were 45 domestic connections, 56 industrial connections, 311 commercial connections and 1,432 other connections besides seventy road-lighting points. The number of all these connections, especially domestic and commercial, has increased since then. The medical facilities to the town population are provided by a health centre with three beds, a dispensary with three beds and a family planning centre. Four primary schools, three secondary schools including a high school known as the Khadi Vidyalaya besides one type-writing institute cater to the educational needs of the village

population. Recreation facilities are provided by a cinema theatre. There is one public library in the town. Wheat, *jawar* and sweet oil are the three most important commodities imported in the town while rice, *wari* and timber are the three most important commodities exported from the town. In the town are located two banks and 76 agricultural credit societies. A Government rest-house is also located in the town. The town has an office of the mamlatdar built on the standard plan in 1875-76 at a cost of Rs. 24,527.

Tieffenthaler mentions Shahapur in 1750 as a village at the foot of the Sahyadri hills with huts made of wattle and daub. In 1827 Captain Clunes notices it as a post runner station with seventy-five houses, four shops and wells. It was then a flourishing market town with, in 1881, a population of 2,124, of whom 1,823 were Hindus, 192 Musalmans, five Parsis and four Christians. The traffic at the railway station showed an increase in goods from 3,680 tons in 1873 to 7,881 in 1880, and in passengers from 21,995 to 38,606. There are five Hindu temples in Shahapur, one Bohora and two Muhammedan mosques, as also a Musalman tomb or *dargah*, endowed with some land in the town and with half the private village of Tute. About a kilometre east of Shahapur, in the village of Waphe there are four cisterns at a holy place, *tirth* and three temples, one of Maruti, one of Trimbakeshvar, and one of Bhavanishankar. These temples have recently been renovated at public contribution. In the village of Waphe is also located an ashram school for *adivasis* which provides boarding and lodging facilities to the *adivasi* students.

An *urus* is held at Baba Amirshahwali *dargah* in April which is attended by about 3,000 people. There is a fair or *jatra*, on *Mahashivratri*, the great night of Shiv (February), when about 3,000 people visit the shrines.

SIDDHAGAD FORT

Siddhagad or Sidgad fort, situated about sixteen kilometres south-east of Murbad, is divided into a lower and an upper fort. The lower fort which completely commands the Gaidhara pass is nearly 900 feet (274-320 metres) above pass-level and approximately 1,400 feet (426-720 metres) above the level of the sea. In 1818 its low fortifications were much out of repair and the gate-way was the only means of communications with the upper part. The upper fort which is 900 feet above the tower and approximately 3,236 feet (986-393 metres) above the sea, is on a level with the Deccan from which it is separated by an immense chasm. The ascent is very difficult. The upper fort originally occupied a space of 245 feet (74-676 metres) by seventy-five (22-860

metres) with a precipice on each side, on the very narrow top of hill about a quarter of a mile (0.40 kilometres) long. In 1818 nothing remained of the fort except a low wall in ruins. There was not a trace of dwellings and the fort was every where over-grown with brushwood. Although ruined, its steepness and difficulty of access made the upper fort almost impregnable. Near the ruined walls were several rock-cut reservoirs with excellent water. The lower fort had also a good supply of sweet water, and a granary, a barrack, and several huts in fair repair. In 1860, a noted freebooter named Bhavaji Naik who had long troubled the police sought refuge in a natural cave in this hill-fort. He ran away with Audi, a barber's wife of Nandgaon village below, lived there with her for many months, employing a servant named Hari Lauriya to guard her. In a fit of jealousy Bhavaji hurled Hari down the precipice where his skeleton was afterwards discovered by the police. Subsequently Bhavaji who had drunk heavily at a marriage feast in Mhase village, was hammered by the villagers and removed to Murbad almost half-dead. Here just before his death he revealed his retreat. His revelation led the police to Sidgad where they found Audi, Tari's skeleton and much stolen property. In 1862 Sidgad was reported to be ruinous. Water-supply was also very scanty. The fort is now very rarely frequented and is now practically in ruins. During the "Quit India Movement" of 1942 two patriots, one of whom was Kotwal, sought shelter in this fort. They were killed in an encounter with the English army units. Sidgad thus stands sanctified by the blood of the martyres and is looked upon with devotion by the people in the surrounding villages.



SHIRGAON

Shirgaon is a non-municipal town in Palghar taluka located at a distance of seven kilometres from Palghar and three kilometres from Satpati, the nearest sea-port. The town covers an area of 10.41 square kilometres and is divided in twenty-one blocks and has a population of 13,881 as per the Census of 1971. Located at an altitude of 25.0 metres, the town gets average annual rain-fall of 1,911.5 mm. with maximum and minimum temperature being 32.4°C and 15.3°C, respectively. The total length of roads in town admeasures 6.80 kilometres, all *kutchha*. The town is served by open-surface drainage, night-soil being removed by head-loads. Wells form the main source of water-supply. The town has been supplied with electricity with 413 domestic connections, seventeen industrial connections and thirty commercial connections, besides 102 road-lighting points, as per the Census of 1971. Medical facilities to the town populace are provided by two health centres with ten beds, a maternity hospital and five

dispensaries. Six primary schools, one middle school, two high schools, one polytechnic and one other institution cater to the educational needs of the town population. Recreational facilities are provided by one cinema theatre and one auditorium. Besides, there are three public libraries in the town. One bank, one agricultural credit society and four non-agricultural credit societies provide the financial facilities to the town. Timber, edible oil and nylon thread are the three important commodities imported in the town while the exports are fish, coconut and vegetables.

Shirgaon Fort stands in the town of Shirgaon on the sea-coast about five kilometres north of Mahim. When surveyed in 1818, its western face was washed at high tides by a narrow inlet or back-water which stretched a short distance to the south. The fort was long with a mean length from the interior of about 200 feet by about 140 in breadth. Almost all the fortifications were of solid masonry in excellent order with a height of thirty and a depth or thickness of ten feet, including the parapet which was seldom more than three feet wide. The defences of the fort consisted of three towers and a bastion at the remaining or south-east corner, whose parapet and escarpment were greatly out of repair. Nearly half the space of the fort was taken by buildings for the garrison and stores. A well supplied sufficient quantity of sweet water. In 1818, the village of Shirgaon and numerous trees came so close to the fort that none of the adjoining ground to the north and east could be seen, and, under cover of the trees, the fort might be approached unperceived to the very foot of the works. In 1862 the fort was described as having a ruined west wall, though the land side was fairly preserved. Supplies of water and food were available. Shirgaon fort was taken with Katalvada, Dahanu, Kelve and Tarapur, by Chimaji Appa in 1739.

SONALE

Sonale, also known as Sonavli, on the right bank of the Kalyan creek about 6.4 kilometres above Kalyan by water, and by land, about 3.2 kilometres north-east of Kalyan and 3.2 kilometres south-east of Bhivandi was once the head-quarters of a sub-division or *mahal* with a large Musalman settlement. It is often referred to as such in the *Peshwa Daftar*. The village covers an area of 609.862 hectares and has as per the Census of 1971, a total population of 676 souls. Facilities for primary education are available in the village. Village is served by the *kutchra* roads. Wells form the main source of water-supply to the village populace.

On the west bank of a pond, near the old village site there were once several Musalman graves with head-stones and rough plinths

built of large slabs. Most of the slabs were probably pieces of basalt pillars, but among them there were some with carving and tracery indicating that they were taken from some older Hindu buildings and shrines. About sixty yards to the west is an *idgah* or Muslim prayer place now out of repairs, and about a hundred yards to the south, on raised wooded ground, stands an old mosque. While the lower part of the mosque walls are of stone, the upper are of brick. The bricks are old and big (9"×14"×2"), evidently old Hindu bricks, and several of the stones have carvings. One stone seems very ancient with carving that looks like a picture of a buried mound or *stupa*. The other stones probably belong to the eleventh century. On the ground to the south of the mosque lies an old ceiling stone. The remains seem to show that the mosque stands on the site of a old Hindu temple. East to the mosque the ground is covered with graves. Several of them have rounded head-stones about two feet high and one foot across the face nicely cut with the ordinary hanging chain lamp in the middle, and lotus flowers carved at the sides, in the style of Musalman grave stones apparently peculiar to the Konkan. On a slightly raised site, about sixty yards to the east there were once the ruins of an English dwelling, which was built by Dr. Seward. About a quarter of a mile to the south-west in a field, is a well carved pilaster of the eleventh or the twelfth century now in ruins. To the north-east of the village site, at a distance of nearly a quarter mile, there was the right-hand post of a gateway (1'7"×7"), with a figure of a female wearing large ear-rings and holding a mace in her hand ; nothing of it now remains. It seems to be of the tenth or the eleventh century. About half a mile to the east, a quarter of a mile north of Pada, a hamlet of Sonvali, is a thirty-six feet square bathing pool with its sides surrounded by steps of dressed stone. On the south bank, at the foot of a thorn bush, is a small broken image of Vishnu of the eleventh or twelfth century. About a quarter of a mile to the north is a sun and moon land grant stone, with roughly cut writing. The writing is so weather-worn that little but the date A. D. 1361 (S. 1273) can be read. The date is interesting as showing that after their first conquest in 1294, the Muhammedans left to the local chief the right of making land grants.

SOPARA

Sopara, a small village in Bassein taluka, is a railway station on the Western railway and lies about ten kilometres to the north-west of the Bassein Road railway station and equidistant to the south-west of Virar railway station. The village covers an area of 80.937 hectares and has a population of 4,249 souls, as per the Census of 1971. Educational facilities to the village population are provided by two

primary schools conducted by the Zilla Parishad and a secondary school. The village has been supplied with electricity and wells and tank form the main sources of water-supply to the village population. Medical relief is provided by a dispensary conducted by the Zilla Parishad. The village has *pucca* roads and is served by the State Transport buses. A post office is also located in the village. The only object of interest in the village is the temple dedicated to Gautama Buddha. The village has a great antiquity and was the capital of the Konkan from about B. C. 1500 to A. D. 1300. As such the description of Sopara as it appeared in the old *Thana District Gazetteer* is quite interesting and hence is reproduced below :—

“It is still a rich country town with a crowded weekly market and a population of about 1700. The richly wooded well watered and highly tilled tract, including Bolinj Koprad and Umbralla in the north, Nirmal and Vagholi in the west, Gas in the south, Sopara and Mardesh in the centre, is locally known as the garden or *agar* of Sopara. It is the middle part of the strip of garden land about three miles broad, that run from the Bassein creek to the Vaitarna, being bounded on north by the *agar* of Agashi and on the south by the *agar* of Bassein. Under the Portuguese the whole of this rich strip, with its patches of salt marsh, was known as the island of Bassein, and, before Portuguese times, as the island of Sopara. It is called an island, because it is cut from the mainland by a back water which leaves the Bassein creek a little above the railway bridge and winds north to the Vaitarna. This backwater used to be called the Sopara creek. It is now locally known by three names, the Manikpur creek in the south, the Sopara creek in the centre, and the Bolinj creek in the north. It was once a considerable arm of the sea over-flowing a large breadth of land on both banks of its present channel. But, with the mud-laden Vaitarna on the north and the Bassein creek or Ulhas river on the south, silting has been rapid, especially since the long railway embankment has dammed the flow of water from the south. Small boats of ten or twelve tons (30-40 *khandis*) still come from the south as far as Gas which is about a mile, and from the north as far as Bolinj which is about two miles from Dadar or the old Sopara landing. At Sopara the creek is dry.

West of the bare salt waste that borders the Sopara creek and north of another salt waste that runs west from the Bassein Road station, stretch bright patches of sugarcane shaded by cocoa and brab palms and by lines and cluster of mango, tamarind, banyan, *pipal* and *karanj* trees. Within this rich garden island, four or five feet below the level of the fields, shady lanes, fringed by high hedges, wind among mango and plantain orchards, fields of rice and sugarcane, and open raised plots, apparently the sites of old buildings.

The lanes are in places lined with walls, and in wet muddy hollows are bordered by broken rows of large smooth-topped blocks of basalt apparently remains of an ancient foot-way. Till the month of March the island is full of water. Runnels from garden wells cross on flow alongside of the lanes, and at many turns the road passes close-by round ponds and long winding lakes, whose banks are fringed by high pile-supported Persian wheels. Here and there along the banks of the lanes are rows of large houses with tiled roofs and wooden walls, raised on high masonry plinths, many of them partly built or dressed or carved stones. Sopara itself has a broad market place, bordered by large one and two storeyed houses with rich wood carving and walls which owe much to old dressed stones and large old bricks. On the banks of some of the lakes are the sites of old buildings with half-buried bricks and carved stones, or modern mosques and shrines whose builders have made free use of the older masonry. To the south-west, beyond the rich garden trace, a flat of salt waste and rice fields rises into the wooded slopes of Nirmal on the west, the bush and palm-covered knoll of Brahma hill on the south-west, and the even crest of Vajirgad. Beyond Vajirgad the salt waste and rice ground are fringed by the cocoa palm woods that stretch south to Bassein.

The husbandmen of Sopara are Christians, many of them converted Samvedi Brahmans ; Musalmans many of them Naitas, descendants of Arab and Persian refugees and traders ; and Hindus chiefly Samvedi Brahmans and Bhandaris. The traders are Musalmans, many of them Naitas, and Gujarat Vanis, chiefly of the Lad Sub-division who came From Cambay about 1760 when its traders fled from the exactions of Momin Khan II.

The chief products of Sopara and its neighbourhood are molasses, rice, plantains and betel-leaves. Molasses, rice and betel-leaves go by sea from the Gas, Bolinj, and Vagholi landing-places to Surat, Broach, Jambusar, Dholera, Bhavanagar, and Gogha. By rail, chiefly from the Virar station, Molasses, rice and betel-leaves pass north to Ankleshwar, Nadiad, Viramgam and Patan, and large quantities of plantains and betel-leaves are sent south to Bombay. The chief imports are cloth and hardware from Bombay, and provisions and oil-cake from Gujarat ports. Oil-cake is in great demand as a manure for sugar-cane. Though not more than three-quarters of a mile from the line of railway, Sopara is somewhat badly off for communications. Small boats of from eight to ten tons (30-40 *khandis*) come at high tide from the south as near as Gas landing place about a mile from Sopara, from the west as near as Vagholi, about two miles, and from the north as near as Bolinj also about two miles. By land the metallad Virar-Agashi road helps the Sopara traffic about a mile

to Bolinj. But between Bolinj and Sopara the road is a narrow low lane passable for wheels only during the fair weather. From Manikpur the route lies about a mile along the made Bassein road, and then two and a half miles north-west along a rough fair-weather track across a bare salt waste, which during the rains is flooded and impassable. A station at Sopara or a made road to the town from the Agashi high road would be a boon to its people as well as to visitors."

Its height above the surrounding salt marsh, its rich soil and fresh water, and its nearness to the holy Vaitarna, Jivdhan, Tungar, and Nirmal, must have made Sopara a chosen settlement. Its distance from the coast and its broad back water guarded it from pirate raids or the forays of the wild hill and forest tribes, and its water connection with the Vaitarna on the north and the Ulhas or Bassein river on the south, and, between them, the easy land route along the Tansa valley made it an early centre of trade. Sopara must always have secured much local traffic. And, when its rulers were powerful sovereigns, holding the Deccan as well as the Konkan, it became a centre of the great commerce between east and west Asia.

Under the name Shurparaka, Sopara appears in the *Mahabharat* (B. C. 1400) as a very holy place, where the Pandavas rested on their way from Gokarn in north Kanara to Prabhas or Veraval in south Kathiawar. It is mentioned in the *Harivansh* as a city 500 bows that is about a thousand yards broad, and 500 arrows that is about five hundred yards high, and is said to have been built on the belt of land recovered by the arrow shot by Parshuram when he won the Konkan from the Sea. According to Buddhist writers, in one of his former births Gautama Buddha was Bodhisat Supparak, that is, a Bodhisattva of Sopara. About B. C. 540, it is said to have been a port visited by Vijaya, the mythical conqueror of Ceylon.

This old Hindu fame supports Benfey's, Reland's, and Reinaud's opinion that Sopara is Solomon's Ophir (B. C. 1000).

Four points may be urged in favour of this view. First, the close likeness between the names Sopara and Ophir. The people near Sopara often either change initial S into H or drop it, and, on the other hand, Ophir is written Sophir by Josephus, and, according to several authorities, Sophir is the Coptic or Egyptian word for India. Second, the length of time taken by Solomon's ships, three or at least over two years, from the head of the Red Sea to Ophir and back, is more suited to an Indian than to an Arabian voyage. Third, the articles which the ships brought to Solomon, gold precious stones, sandal-wood, ivory, peacocks and apes are Indian products. Fourth, the Hebrew names of several of the articles, sandal-wood, ivory, peacocks and apes are of Sanskrit or of Dravidian origin.

The chief places in India that have been identified with Ophir are Abiria in Sindh, Sauvira the modern Idar in Gujarat, Goa and the Malabar coast. None of these either in name or in position, suits so well as Sopara. Still the site of Ophir is unsettled. Ophir was almost certainly either in Arabia or in West India, but to decide between the rival claims of Arabia and India seems almost hopeless. At present two of the latest opinions of Egyptian scholars, that Punt or Sophir was either the Somali or the Arabian coast, and that some of the names of articles thought to be Sanskrit are old Egyptian, make the balance lean in favour of Arabia.

Jain writers make frequent mention of Sopara. Their mythical king Shripal is said to have married Tilakasundari, the daughter of king Mahasena of Soparaka.

The famous Jain priest and writer, Jinaprabhasuri, mention Sopara (Soparaka) as one of the eighty-four sacred places of the Jains, and notices that while he was still alive Sopara had an image of Rishabhadev, the first Tirthankar. One of the eighty-four *gachchhas* or Jain sects is called after Sopara.

The Sanskrit dictionary, *Yadava Kosh*, appears to point to Sopara as the chief place in Aparanta where it says, "Aparanta is the western country, Shurparaka and others". The fragments of the eighth edicts of Ashok, found in Sopara, in April 1882 seems to show that it was the capital of Aparanta in B. C. 250, and makes it probable that the Yavana Dharmarakshita, the Aparanta missionary of Ashok, came and preached the law in Sopara. According to a Gujarati story king Vikram (B. C. 56), the supposed founder of the *Samvat* era, is said to have obtained from Sopara one of the *panchdands* or five magic wands.

Under the names Soparaka, Soparaya and Shorparaga, Sopara is mentioned in old Devanagari inscriptions of about the first or second century after Christ. Of two inscriptions on a pillar in the great Karle cave, one, about the beginning of the first century before Christ, records the gift of a pillar by Satimita (Sk. Svatimitra) of Soparaka, and another below it, of the same time, records the gift of a pillar containing relics. An inscription in Nasik Cave VIII, of about the middle of the first century after Christ, mentions Shorparaga as one of several places where Ushavadata, the son-in-law of the Kshatrap ruler Nahapan, built rest-houses and alms-houses. Ramatirtha in Shorparaga is also mentioned in this inscription, and to the monks of the Charak order living at Ramatirtha, along with those of three other places, a gift is recorded of 32,000 cocoanut trees in Nanagoo village. About the same time an inscription near a reservoir in the Nana pass records that the reservoir was made by one Govindadas of Soparaya. Of two inscriptions in the Kanheri Caves (3 and 7), of about the second

century after Christ, one, which is broken, records something done in the district or *ahar* of Soparaka, and the other the gift of a cistern by one Samika, a merchant of Soparaka. The coins and the Buddhist relics, found in April 1882 in a relic mound in Sopara, show that, about the middle of the second century after Christ (A. D. 160), Gautamiputra Yajñashri Satakarni was the ruler of the Konkan, and that Sopara was then a Buddhist religious centre, and had skilful masons, copper-smiths and gold-smiths.

Of foreign writers, Ptolemy (A. D. 150) has a Supara between Nusaripa (Navasari) and Simyllax (Chaul), and the author of the *Periplus* (A. D. 247) mentions Ouppara between Broach and Kalyan as a local mart along the coast. In the sixth century (545) Kosmas has a doubtful reference to Sibor, a place of great trade on the coast near Kalyan. In the legend of Purna, translated by Burnouf from Nepalese and Tibetan sources, apparently of the fourth or fifth century after Christ, Sopara (Surparaka) is described as the seat of a king, a city with several hundred thousand inhabitants, with eighteen gates, and a temple of Buddha adorned with friezes of carved sandal-wood. It was a great place of trade. Caravans of merchants came from Shravasti in Oude, and great ships with 500 (the stock phrase for a large number) merchants, both local and foreign, traded to distant lands. There was much risk in these voyages. A safe return was the cause of great rejoicing. Two or three successful voyages made a merchant a man of mark. Who, says one of the merchants in the story, that has made six safe voyages, has ever been known to tempt providence by trying a seventh? One of the chief articles of trade was cloth, fine and coarse, blue, yellow, red and white. Another of the most valued articles was the sandal-wood, known as *goshirsha* or cow's head, perhaps from its pleasant scent. This was brought apparently from the Kanara or Malabar coast. The coinage was gold, and many of the merchants had huge fortunes. A strong merchant-guild ruled the trade of the city. The religion of the country was Brahmanism. There were large nunneries of devout widows, monasteries where seers or *Rishis* lived in comfort in fruit and flower gardens, and bark-clad hermits who lived on bare hill-tops. The gods on whom the laymen called in times of trouble were Shiva, Varuna, Kubera, Shakra, Brahma, Hari, Shankara and divinities apparently *Matas* or *Devis*. Besides the gods, many supernatural beings, Asuras, Mahoragas, Yakshas, and Danavas, were believed to have power over men for good or for evil. Purna, the son of a rich Sopara merchant by a slave girl, whose worth and skill raised him to be one of the leading merchants of Sopara, turned the people of the Konkan from their old faith to Buddhism.

In the beginning of the tenth century (915) Masudi mentions Subara, along with Thana and Saimur probably Chaul, as coast towns where

the *Lar* dialect was spoken. About forty years later, apparently confusing it with Ulpar in Surat, Ibon Haukal and Al Istakhri place Sopara (Surbarah and Surabaya) between Cambay and Sanjan. At the beginning of the eleventh century a Biruni (1030) calls it Subara and restores it to its right place, putting it forty-eight miles south of Sanjan and forty north of Thana. About sixty years later (1094) Sopara (Shupara Ka) is mentioned as a port in a Shilahara grant. Towards the middle of the twelfth century (A. D. 1135-1145), Sopara (Shurparaka) had the honour of sending the Aparant delegate to a literary conference held in Kashmir. The reigning king of the Konkan at that time is called Aparaditya, a new Shilahara king, of whom a stone land-grant dated A. D. 1138 has lately been found in Uran. In the middle of the twelfth century Al Idrisi (1153) describes Soubara as a mile and a half from the sea, a very well peopled city, with a great trade, considered one of the emporiums of India. Pearls were fished there, and in an island nearby called Bara (the island of Sopara) grew cocoa-palms and the costus, an aromatic root.

Before the beginning of the fourteenth century Thana had become the chief centre of trade. But Sopara was still a place of consequence. It is mentioned by Abul Fida (1273-1331) and Friar Jordanus (1322) went from Thana to Broach by Supera, and brought with him and buried the bodies of his four companions who were killed at Thana. There seems to have been a relic of the old Kalyan bishopric at Sopara, as Jordanus found many Nestorian Christians and a church dedicated to St. Thomas, the Apostle. Here he buried the four friars, and during a stay of fifteen days instructed many people, baptised them, and administered the Holy Communion to about ninety Christians. He recommends Supera and that part of the coast as an important place, not only for missions in India, but as a good starting point for missionaries to Aethiopia. In 1500, under the name Sorab, perhaps for Sobar, it is mentioned as a Konkan place of trade with Gujarat. Under the Portuguese Sopara was a fortified post with four wooden stockades. Early in the eighteenth century (1728), for a distance of about of 4,000 feet between Sopara and Bolinj, the creek was fordable at low water. The four watch-towers, which from want of funds General Louis de Mello Pereira had made of cocoa-palm stems, had in three years become unfit to bear the weight of the two pieces of artillery with which they were armed. The writer complains that a bridge, which the same Louis de Mello Pereira had made across the creek at Gokirva, was unprotected and left the approach open to an enemy. At Timli, too, the creek could be easily crossed. The writer was anxious that the creek between Sopara and Bolinj should be dug as deep as the height of a man, otherwise it would soon be filled to a level with the fields, because of the great amount of silt that was brought by the river from

its two mouths and left in the centre. He recommended that a deep ditch should be dug in front of Sopara. The older fortifications were three redoubts, mutually flanking each other and enclosed by a timber stockade. These were strengthened, in 1728, by building a ditch round the stockade and by raising a stone and mortar redoubt. About the middle of the eighteenth century Sopara, or Sipala, though fallen to insignificance, is noticed by Du Perron in his journey from Surat to the Elephanta Caves (27th November 1760); he also mentions Vagholi with a creek of its own, and Nirmal with two ponds and a temple. In 1803, when Bajirav fled to Bassein and placed himself under British protection, a palm tree stockade was set up to guard the Sopara bridge.

In 1818 Captain Dickinson noticed a bridge and palm tree stockade at Sopara, and the remains of a Portuguese tower. In 1826 Clunes calls Sopara a *kasba* and a post-runner's station with 400 houses, forty shops, and a sugar factory. In 1837, Vaupell found Sopara a large place, with a considerable Musalman, Christian and Hindu population. Grain, salt, and garden produce were sent to Gujarat and Bombay, and timber was brought from the hills. Very good fishing boats and country vessels were built.

For a place whose importance as a religious and trade centre lasted for over two thousand five hundred years (B. C. 1400—A. D. 1300), Sopara has few remains. Timber was so plentiful and so good that the bulk of the buildings were probably always of wood. Of stone temples and stone lined lake sand reservoirs, many are said to have been destroyed by the Musalmans in the beginning of the fourteenth century. Still enough were spared, or repaired, to excite the admiration and wonder of the first Portuguese (1530-1540). But, during the sixteenth and seventeenth centuries, the lake banks were stripped and the temples pulled down, and the stones used in building Portuguese churches, forts, and houses, the bulk of them probably finding their way to the great walls and religious and state buildings whose ruins still adorn the city of Vasai. Except a few lately unearthed statues and fragments of carving, the only remains are so old that the people had ceased to know of them or care for them, centuries before the Portuguese came to India.

Objects of Interest: Of the objects of interest in the village almost all are extinct and only a portion of the relic mound is traceable. However, the place being of great antiquity the description of these objects as it appeared in the old *Thana District Gazetteer* is reproduced below, as of interest to scholars and students of ancient history :—

The Objects of Interest in and around Sopara may be seen either from the Virar station, about three and a half miles to the north-east, or from Nala Sopara railway station, about a kilometre,

or from Manikpur, about three and a half miles to the south-east of Sopara. Nala Sopara is the nearest railway station from where buses are available. Some of the visitors go from Manikpur about four miles north-west of Brahma or Vakal hill; from Brahma hill about a mile north-west of Nirmal; from Nirmal about two miles north to the Burud-king's tower or Buddhist relic mound; from the relic mound about half a mile east to Sopara, from Sopara about a mile south to Gas; and from Gas about three miles south-east to Manikpur, a total distance of about twelve miles.

From Manikpur to Brahma Hill the way runs for about three quarters of a mile along the Vasai road. It then strikes across the bare flat, formerly flooded during the rains and now being gradually reclaimed for rice. After about two miles, on the north are the raised lands of Gas and Sopara, full of trees and sugar-cane gardens, and, on the west, the long wooded hill of Nirmal and the small palstudded knoll of Brahma hill. About a mile and a half to the south, rises the steep crest of Vajirgad, apparently with some remains of built blocks of basalt, but with no certain trace of any thing older than the Portuguese fort that crowns its top. Beyond this, the path crosses some of the rice-fields, that fringe the garden lands of Gas, and reaches the north end of the Brahma hill.

From the east, Brahma hill rises about forty feet in a steep rocky slope from a boulder-strewn rice-field which was once a pond. The steep side of the hills is thickly covered with thorns and brushwood, and large blocks of basalt are piled in places as if into an artificial wall. Along the crest of the knoll, half-hid by long grass and thornbushes, runs a line of blocks of basalt, in places apparently built three or four deep. The number of these blocks, laid as a foot-way along some of the lowest parts of the road between Gas and Nirmal and built into the plinths of Gas and Sopara houses, shows that Brahma hill has long been used as a quarry. At the north foot of the hill the ground is rough with thorn and cactus bushes, among which are low round mounds from nine to twenty feet across and three or four feet high, built of blocks of basalt, with traces of large mortarless bricks. On a smooth-faced block of basalt, close to a built circular mound about fifty yards north of a clump of rayon trees, is inscribed the word "Satumadanasa", that is, of Satumadana (Sanskrit *Shatrumardana*) in Pali letters of the second century before Christ. This mound was opened in February 1882 and dug about three feet deep. Nothing was found except some small potsherds and one or two pieces of earthenware covered with a rough green enamel or glaze. About eighty yards to the south-west is another stone (3' x 2') with the words "Dataya Bhemiya" (Sanskrit *Dattayah Bhaimyah*), that is, of Data, the daughter of Bhim, also cut

in Pali letters of about the second century before Christ. There are no signs of mound near this stone, but the ground in front of it is said formerly to have been a hollow stream-bed which has lately filled. About fifty yards to the east, under a group of rayon trees, are some large paved slabs, and, leaning against the trunk of one of the trees, is a carved fragment of a Hindu temple.

About half-way up the thorn-covered western slope of the knoll, is a group of two large rayon trees and the fragments of an old banyan tree. This spot is sacred, and, during soares caused by epidemic outbreaks of disease, is used as a place for feeding Brahmins. The top of the knoll commands a fine view. To the north lie the rich dark woods and the light green sugar-cane gardens of Gas and Sopara, to the west are the wooded slopes of Nirmal, to the south of the flat crest of Vajirgad, and to the east, across the bare salt-waste, rises the level line of Tungar, ending to the south in the peak of Kamandurg.

The top of the knoll is thickly strewn with undressed blocks of basalt, laid in circles from nine to twelve feet in diameter. The most of them are ruined, some of these circular mounds still rise in rough cairns, a foot or two above the general level. Two of these circles were opened in April 1882, and the ground was dug three feet deep. Nothing was found but earth and big stones. The hill was once nearly surrounded by ponds. Out of the rice-field to the east which is known as the Vakal ponds, two stones with Pali writing of about the second century before Christ have dug, and are now the chief objects of interest in Gas about a mile to the east. A little to the south was the Kaklai pond, now a rice-field, and a little to the west is a round hollow about fifty-five yards across, known as the Visral pond. To the west lies a very large long lake, the southern end tilled with rice and onion-beds, the north end still holding water and known as the Malai lake. This Brahma hill seems to have been the burial-place of the Kod tribe, as this tribe is mentioned in one of the inscriptions found near the hill. It is interesting as being the first ancient civil or lay burial-place that has been found in Western India.

To the west of the Malai lake rise two knolls, the southern knoll low and covered with thorn-bushes and some brab-palm, the northern knoll, which is higher and longer, is the hill of Nirmal, also known as Bagh or the garden, whose wooded slopes and crest hide the great temple of Shankaracharya Swami, which was raised by Shankarji Keshav Phadke in honour of the restoration of the old faith, on the fall of the Portuguese in 1739. On the wooded slope of Nirmal hill, to the south and east of the temple, are circles of old brick and blocks of undressed basalt, like those on Brahma hill. To the east of the temple is a huge lamp-pillar. From the west is a fine view across the great

Nirmal lake to the sea. A handsome flight of stone-steps leads down the west side of the hill to the village of Nirmal, in which are several smaller temples, and shrines. In front of a house in Nirmal village, about 500 yards north of the great temple, is a long dressed stone with six letters, which seem part of a Sanskrit inscription of the seventh century.

Two miles north of Nirmal, in a wooded untitled plot of garden land about a quarter of a mile west of Sopara town, stands a Buddhist *stupa* or relic-mound, which is locally known as *Burud Rajacha Kot*, that is, the fort of the Basket-making King. The mound, which is about sixty-five yards round the base, rises about thirteen to fourteen feet with steep earthen sides, out of which grow several *karanj* bushes and large brab-palms. At the top of this seventeen feet bank runs a level terrace about fifteen feet broad, and, from the back of the terrace, studded with big brab-palms and large *karanj* bushes, rises a dome about ten feet high and twenty feet across the top. The best view of the mound is from about sixty yards to the south, where the outline of the large rounded base, the flat terrace, and the dome is still clear. Round the mound the foundations of a brick and stone wall can be pretty clearly traced, about fifty-six feet to the north and south of the mound and about ninety-five feet to the east and west. The oblong space, which this wall encloses, measures two hundred and fifty-two feet from east to west, and one hundred and eighty from north to south. In the middle of the south wall there seem to be the remains of a gate, and, in the middle of the east wall, there was the main entrance. Outside of the east entrance gate, a bush and thorn-covered space, forty-eight feet square, is full of brick and stone foundations. The marked line of wall along the north side of the enclosure was built, about fifty years ago, by a Musalman beggar named Shaikh Amir. It stands nearly on the line of the old wall.

When he settled near the foot of the tower, Shaikh Amir dug a well, and turned the land round into a garden. He explained his wealth by his knowledge of the art of making gold, worked many wonders as a chemist, and was greatly feared. At this time Sopara and the villages around were troubled by a band of robbers. They robbed at night and disappeared in the morning leaving no trace. One morning, the robbers were found in a house, and, with the police at their heels, fled into the chemist's garden and disappeared. Search round the garden showed that the robbers had not left it and, as the police drew close to the tower, three men bounded out of the dome, and, taking different directions, escaped. The tower was searched and the dome was found hallowed about six feet deep, and the hallow chamber filled with stolen property. The men had stayed under-ground during the day, and at night had come out to rob. The proof was clear and the chemist

was transported for life. A grave on the east side of the terrace, with a fragment of an old Hindu temple as a head-stone, is the grave of Ramjan Khan, an Afghan, one of the chemist's disciples. After Shaikh Amir's conviction the hollow in the tower was filled, and since then the mound has been constantly drained of its bricks almost the whole outer coating having been carried away.

According to the common story, the king who built the tower was of so kindly a spirit that he took no taxes from his people. He lived without show and with the strictest thrift, paying for his food by the sale of bamboo-baskets made by his own hands. He is known as the *Burud Raja*, or basket-making king, and as the *Dharma Raja* or the pious king. His land was rich and his people feared that an enemy might come, and, finding the country ungraded, lay it waste. They asked the king what he would do if an enemy comes. "I have no enemy", said the king. "If an enemy comes I will guard the land.". To test the king's power, some of his less believing people banded together and marched towards the city as if in hostile array. Others, in the secret, fled to the king with the cry "An enemy is before the gates." "Are the people who are before the gates truly enemies" asked the king. "They are truly enemies," said the unbelievers. Then the king raising his heavy knife, cleft a slip of bamboo that lay in front of him, and, at that instant, the band of the unfaithful perished.

The Basket-making Queen is also known to the people. She wore no ornaments, and did all the house-work in her husband's fort. She used to go to draw water at the Chakreshvar lake, about 500 yards to the north-east of the fort. Simply dressed, and with no ornaments but palm-leaf bracelets, she used to walk on the water and fill the water-pot at the pole in the middle of the lake, where the water was pure and untroubled. The women said, "We all have jewels and you, who are a king's wife, have no jewels. Ask your husband, he will not deny you." The king said, "Why do you want jewels? What profit is in jewels"? She pressed him and he took a betel-nut from every house, and, with the betel-nuts, bought her jewels. The Queen put on her jewels and went to draw water. But, as she walked on the water, the weight of her jewels dragged her down and she sank. It was hopeless to reach the middle of the lake, so she filled her water-pot from the side. The king saw that the water was foul and asked what had happened. She confessed her fault and never again wore jewels.

In February 1882 the resemblance of the Tower to a Buddhist relic-mound was noticed by Mr. Mulock, the Collector of Thana, and, with his help, the mound was opened by Pandit Bhagvanlal and the writer; in the beginning of April 1882. A passage was cut from east to west, a little to the north of the centre line, so as not to disturb Ramjan Khan's grave. The cutting was made about four feet broad, with a rise

about twelve feet from the level of the ground at the outer face of the tower, to the centre, where it is about sixteen feet below the top of the dome. Inside of the dome there was loose earth, and about six feet from the top were found a pair of rusted scissors and an English two-anna piece of 1841, relics of the chemist's plunder. About twelve feet from the top of the dome, that is, about a foot below the terrace from which the dome springs, in the centre of the body of the mound, was found the beginning of a carefully-built brick-chamber about two feet nine inches square. About two feet nine inches from the top of this chamber, kept in its place by eight large bricks ($1'7'' \times 1' \times 3\frac{1}{2}''$), was a dark circular coffer about two feet across and a foot and a half deep. This coffer was formed of two equal blocks of smooth yellow trap, closely fitting together in the middle, and ending in a circular convex top and bottom. It looked like two huge grind-stones with bevelled edges. Below the coffer bricks were strewn with the mouldy remains of sweet-smelling powder. Underneath the relic coffer, the brick-filled chamber, keeping the same size ($2'9''$ square) and with the same carefully-built walls, passed down about twelve feet, when a layer of flat bricks was reached, apparently the foundation of the mound. Unlike the bricks in the relic chamber and on the outer face, which are laid on earth, these foundation bricks seem to be set in cement.

The section of the mound laid bare by the cutting shows an envelope of earth about three feet thick. Inside of this envelope a casing of carefully-built bricks rose from twelve to fourteen feet, ending in a horizontal layer or terrace, eighteen feet broad, from which rose a dome of roughly-built brick and earth, whose top is so ruined that its original shape cannot be determined. The masonry of the mound seems to have been brick throughout. A good deal of it is rough-baked brick laid in layers of clay. But the part of the eastern wall which has been cleared, is faced with large finely-baked bricks. As far as was seen, except some moulding near the east entrance and one brick roughly shaped like an elephant, the masonry is plain.

The stone coffer stands seventeen and a half inches high. It is in two equal parts which meet in the middle and fit tightly together. The stone is a light-coloured trachytic trap, apparently the same as the trap found in the Nil hill, about a mile east of Sopara, and also near Kurla in Salsette. Their perfect smoothness and the sharp accuracy of their lines seem to show that the two stones that form the relic box were turned on the lathe. The surface has been covered with a black wash of clay with a trace of iron in it, which can be picked off in small flakes about one sixty-fourth of an inch thick. From the rims of the convex top and bottom, the sides curve for about two inches inwards in a groove about an inch deep. Then for three inches they swell to the line of the upper and lower rims, and from that, for about two

inches, they again curve gently inwards, with a groove about a quarter of an inch deep, to the middle of the height where the upper and the lower stones, that is the lid and the box, meet. The whole is very massive and of great weight.

On opening the coffer, the lid, which fits very tightly, was found to be kept in its place by a flange or inner rim on the lower stone, an inch thick and an inch higher than the outer rim. The inside measurements of the box or lower stone are nineteen inches across and six and a half inches deep. The inside measurements of the lid or upper stone are twenty-one and a half inches across and five inches deep. In the centre of the box stood an egg-shaped copper casket, about eighteen and a half inches round the middle and six inches high. Round the casket, at about two inches distance, was a circle of eight small copper castings of Buddha, about four inches high by two broad and about two inches apart. The central casket and the images were thick with rust and with what looked like damp brown and grey earth, but was the mouldy remains of sweet-smelling powder which had been scattered over them, about an inch deep.

Of the eight images the chief, facing the west, is Maitreya or the Coming Buddha. His image is about five inches high by three and a half broad. It is larger than the rest, which, with slight variations, measures about three and a half inches by two and a half. All the figures are seated on flat raised platforms, and over each is a horse-shoe arch or canopy. The chief figure or Maitreya Bodhisattva differs greatly from the rest, whose general character is much alike. His pedestal is higher and it is square instead of oval, his right foot hangs over the edge of the pedestal, he wears ornaments and has a rich conical crown or tiara, his crown is surrounded by a horse-shoe aureole, and his canopy is plain. The other figures are all seated in the usual stiff cross-legged position, wearing a waist-cloth and with an upper robe drawn over the left shoulder. The expression of all is calm and unmoved. The hair looks as if close-curved with a knob on the crown, and the ears are heavy and long. The hands are arranged in different positions, two of the positions being repeated. Each figure represents a different Buddha, the plume of leaves that crowns the canopy showing which of the Buddhas each image represents. All the copper castings are well-proportioned and clearly and gracefully formed. The ears, though large and heavy-lobed, are not so inshaped or ugly as those of later images. The leaves of the different *bodhi* trees which crown the canopies of the different Buddhas, are formed with extreme care and accuracy. This circle of Buddhas means that Maitreya has become Buddha and has come to claim Gautama's bowl, fragments of which are enclosed in the casket. Gautama is ready to hand over the bowl, and the six older Buddhas attend, because it was believed that

Gautama's bowl had been handed down as a symbol of office by the six earlier Buddhas.

Maitreya Bodhisattva or the Coming Buddha, the chief and largest image, is placed facing the west, because, on becoming Buddha, he will pass through the great eastern gateway, open the relic-chamber, and, from the gold casket, take the fragments of Gautama's bowl. Maitreya is represented as a Bodhisattva or coming Buddha not as a Buddha; as a king not as an ascetic. He is seated on a high pedestal. His right leg is half-drawn across, the foot hanging down, the toe resting on a lotus. The left leg is doubled right across, the heel drawn back close to the body, and the sole half turned up. The right arm is stretched forward, the back of the open hand resting on the right knee in what is known as the Giving Position or *Vara-mudra*. The left hand, which is raised a little above the elbow, holds with much grace a lotus stem which ends above in three flower heads. They wear a rich conical crown or tiara, and round the crown a detached aureole in shape like a horse-shoe. He wears ear-rings, two neck-laces, a sacred thread, armlets, bracelets, and anklets. Round the waist is a band as if of thick string, and round the hips and hanging in front is a fringed belt. Over his head rises a horse-shoe arch or canopy, with about half-way up a cross-bar or back-rest. To the visitor's left, facing south-west, is Shakyamuni the last or seventh Buddha. He sits, as he sat when he became Buddha, his left hand laid in the lap with upturned palm, his right arm stretched in front, the palm laid on the right knee, and the finger-tips resting on the pedestal, in the Earth-Touching Position or *Bhūṣparśh-mudra*. From the centre of the arched canopy above him rise three springs of the peak-leaved pipal (*Ficus religiosa*), Gautama's Tree of Knowledge or Bodhi Tree. To the left, facing south, is Kashyapa the sixth Buddha. His left hand is laid in his lap with upturned palm like Gautama's left hand, but the right hand is raised to the level of the shoulder and the palm is open with a slightly forward bend in the Blessing Position or *Abhaya-mudra*. The centre of his canopy is crowned with a tuft of banyan leaves (*Ficus indica*), Kashyapa's Bodhi tree. Next to the left, facing south-east, comes Kanaka the fifth Buddha. Like the image of Shakyamuni he is seated in the earth-touching position, the left hand laid open in the lap, and the palm of the right hand on the knee, the finger-tips resting on the ground. The two twigs of the Udumbara fig., *Ficus glomerata*, that crown his canopy show that he is Kanakamuni. Next to the left, facing east, comes Krakuchchanda the fourth Buddha. He sits cross-legged with both hands in his lap, the back of the right hand laid in the palm of the Thinking Position or *Dhyan-mudra*, also known as the Lotus-seated Position or *Padmasan-mudra*. The leaves that crown his canopy are apparently of the *sirisha*, *Acacia sirisa*, the

bodhi tree of Krakuchchhanda. Next to the left, facing north-east, comes Vishvabhu the third Buddha. He is seated cross-legged like Maitreya in the Giving Position or *Vara-mudra*, the left hand with upturned palm laid in the lap, the right arm stretched in front, and the hand open and turned down, the back resting on the right knee. Unlike the other figures, he has an aureole which fills the space between his head and the canopy. The canopy is crowned with a bunch of leaves, and there are leaves on each side of the head. According to the Ceylon books Vishvabhu's tree is the *sal*, *Shorea robusta*. But these are not *sal* leaves, but apparently *patali*, *Bignonia sunveolens* leaves, which, according to the Ceylon books, is the badge of Vipashyi the first Buddha. The next image, facing north, is Shikhi the second Buddha. He sits cross-legged in the Thinking Position, or *Padmasan-mudra*, the hands with upturned palms laid on the lap, the right hand resting on the left hand. The tuft of leaves that crowns his canopy is apparently of the white lotus or *pundarika* which, according to Ceylon books, is Shikhi's badge. The last image, facing north-east, is Vipashyi the first Buddha. He sits cross-legged in the Teaching Position or *Dharmachakra-mudra*, the hands raised to the chest, the tip of the left little finger caught between the points of the right thumb and fore-finger. His canopy is crowned by a central bunch and two side plume of leaves, much like the leaves of the *Ashok* tree, *Jonesia asoka*. This agrees with the sculptures in the Bharhut Stupa (B. C. 200), but not with the Ceylon books which make Vipashyi's badge, the *patali* or *Bignonia suaveolens*.

Inside of the copper casket was a silver casket, the space of about half an inch between them being filled with dimmed and verdigris stained gold flowers, a handful of caked *abir* powder, some loose jewels, a small gold plate with a pressed-out stamp of a teaching Buddha, and a small silver coin. Inside of the silver casket, strewn with tarnished gold flowers, was a stone casket with sharp true lines as if turned on a lathe. Inside of the stone casket was a crystal casket, and, inside of the crystal casket, covered with bright sparkling gold flowers, was a gold spire-topped box, filled with small pieces of earthenware covered with fresh gold spangles. These shreds of earthenware, the relics in whose honour the mound was built, seem to be pieces of a begging or drinking bowl.

The copper casket weighs one pound six ounces seven dwts. and is worth about 10½ d. (annas 7). It is plain and nearly egg-shaped, about eighteen and a half inches round the middle, and about a sixteenth of an inch thick. It stands about six inches high, of which about one-half is body and one-half is lid. The body is plain and bowl-shaped with a flat bottom. The lid which is slightly conical is girt with two rings of hollow moulding about an inch and a half apart. Round the middle, where the lid meets the bowls, runs a third hollow moulding. The

casket has a rough hinge behind, and in front was fastened by a round-headed copper staple passed through three heavy copper rings. Inside of the copper casket, between it and the sides of the silver casket, were about three hundred gold flowers of seven different sorts, weighing in all about 480 grains and worth about £ 4 (Rs. 40).

Among the flowers was a small silver coin, fresh and clear, which Pandit Bhagvanlal has deciphered to be a coin of Gotamiputra II of the Shatakarni dynasty, who is believed to have reigned about A. D. 160.

The coin weighs thirty-four grains. On the obverse is a well-made male head looking to the right. The head-dress consists of a strap with a bunch of pearls on the forehead; on the temple locks of combed hair fall over the strap, and behind the head hangs a string knotted at the end, probably a braided lock of hair. From the ear hangs a three-ringed ear ornament, one ring below another, falling to the neck. The beard and moustache are shaven, and the face looks about forty years of age. Around the face is a legend in ancient Nagari characters, much like the characters used in contemporary Nasik and Kanheri cave inscriptions. The legend reads "*Siri Yana Satakanisa rano Gotmiputasa*", that is, "*of the illustrious Yajna Shatakarni, the king Gotamiputra*". Yajnashri's title, as given in the Nasik and Kanheri cave inscriptions, is Rano Gotamiputasa Siri Yana Satakanisa, that is, "*Of king Gotamiputra the illustrious Yajan Shatakarni*". The legend should, therefore, be read first from above the head to the mouth, and again from the back of the neck to the middle of the head. The reverse has in the middle a pyramidal symbol of a *chaitya* or relic-shrine composed of three tires, the lowest of three circles, the middle of two and the highest of one. On the top is a large circular tee. To the left is the usual Shatakarni and Ujanin coin-symbol, of four circles joined by two cross lines. Above these two symbols are a sun with rays and a crescent moon, and below them is a zigzag serpent-like line. Round the symbols is the legend in characters exactly the same as on the obverse, and round the legend is a dotted circle. The die on this side is imperfect, as the coin seems to have slipped while it was being stamped. Six letters of the legend are only partly shown. The letters that appear entire are "*Gotamiputa Kumaru Yana Satakani*". Of the six letters, of which only the lower parts appear, the sixth is evidently so, and the other letters from their lower parts seem to make *Chaturapana*. In the absence of another specimen of this coin with the legend entire, the legend on the reverse may be read *Chaturapanasa Gotamiputa Kumaru Yana Satakani*, that is, *Yajna Shatakarni son of Gotami, prince of Chaturapana*. Chaturapana is the proper name of Yajnashri's father. As the coin is struck in imitation of the Kshatrapa coins which give the name of the father, and as the Shatakarnis were always called

after their mothers, care has been taken to give the names of both father and mother. The workmanship of the coin is good. The style is copied from the coins of the Kshatrapas, the points of difference being the bare head, the locks of hair on the temples, and the long braid of plaited hair that falls behind.

Besides the coin, there was a small gold plate with a pressed-out image of a teaching Buddha, a piece of silver wire about two inches long and nearly a sixty-fourth of an inch thick, and a little patch of gold leaf about three-eighths of an inch square. There were also small cakes of mouldy *abir* powder, and forty-five loose beads, a few of them glass, but mostly amethysts, berylls, and crystals, varying in size from a pigeon's egg to a pea, but all of them poor in colour and quality, together not worth more than a few rupees.

Fourteen of the stones were undrilled and thirty-one were drilled. Among the undrilled stones were three berylls, one (about $\frac{3}{4}$ " \times $\frac{7}{8}$ ") very clear and of an irregular egg shape. A second (about $\frac{1}{2}$ " \times $\frac{3}{8}$ ") was six-sided and flat, and a third was a six-sided tube (about $\frac{7}{8}$ " \times $\frac{3}{8}$ "). There were crystals, one a small broken half bead, a second a long rounded bead ($\frac{3}{4}$ " \times $\frac{3}{8}$ "), the third very clear and roughly heart-shaped ($\frac{9}{16}$ " \times $\frac{7}{8}$ "). One was a flat six-sided amethyst ($\frac{3}{8}$ " \times $\frac{1}{4}$ ") another was a small clearly polished carbuncle about five-sixteenths of an inch long. Besides these there were three fragments of rough green glass, and a fourth larger stone (about $\frac{1}{6}$ " \times $\frac{1}{4}$ ") spoilt by verdigris, of a green bottle-glass colour.

The remaining thirty-one stones were drilled. They were loose and in no order, but have been arranged by Pandit Bhagvanlal and found to form the left half of a three-stringed necklace. That they form a half not a whole necklace is shown by there being one instead of a pair of the larger crystals, one pair instead of two pairs of fishes, and one instead of two elephant goads. The first piece, which probably formed the middle of the necklace, is a six-sided block of deep-blue glass, about an inch and a quarter long and five-sixteenths of an inch broad. It is undrilled and was probably held by a gold catch at each end. Next comes a white and purple veined amethyst cut in the form of a Buddhist trident, about eleven-sixteenths of an inch broad and little more in length. Next is a clear roughly egg-shaped beryll ($\frac{11}{16}$ " \times $\frac{9}{16}$ "), next come three small beryll tubes (the largest about $\frac{3}{8}$ " \times $\frac{1}{4}$ "). Next is a double six-sided clear crystal ($\frac{8}{16}$ " \times $\frac{11}{16}$ "), like two six-sided pyramids set base to base. Then comes a pair of conventional bery fishes, a Buddhist symbol of good luck, about seven-sixteenths of an inch long. Then comes three flat circular beads, two of them crystal and one beryll, the biggest $\frac{5}{16}$ " \times $\frac{1}{4}$ ", the others a little smaller. Next comes a beryll bead six-sided and flat, seven twenty-fourths of an inch

long and about the same broad. Next come three dark six-sided beads, a carbuncle and two amethysts, about a quarter of an inch broad. Next comes a tiny broken glass shaft about five-sixteenths of an inch long, perhaps part of an elephant goad. Next comes a six-sided and flat carbuncle ($\frac{7}{8}$ " \times $\frac{3}{8}$ "). Next are three beryll beads, flat, oblong and six-sided and ($\frac{1}{2}$ " \times $\frac{1}{8}$ "), one of them bluer than the others. Next comes an oblong six-sided block of crystal, with three broad sides and three narrow sides, three-quarters of an inch long. Then come three six-sided beryll beads about three-eighths of an inch long. Then comes an irregular six-sided amethyst (about $\frac{1}{4}$ " \times $\frac{1}{8}$ "). Next are three irregular six-sided beryll beads about a quarter of an inch long. One of them is pieced across and not down the length and hangs from the string. Then comes a small beads of brownish red glass, in shape like two pyramids set base to base, and measuring about three-eighths of an inch into a quarter of an inch. Next come three small beads, two of them irregular six-sided berylls, and the third a small six-sided block of malachite (about $\frac{1}{4}$ " \times $\frac{1}{8}$ "). The next is a small round gold button-like ornament, about a quarter of an inch across a central bead surrounded by six other beads. Then a gold ball about an eighth of an inch in diameter. The three small gold tubes ($\frac{1}{4}$ " \times $\frac{1}{8}$ "). Then a pellet of gold about an eighth of an inch in diameter and then a circle of gold balls about a quarter of an inch across. There was another gold drop that has been broken. The thin plate of gold, with the pressed-out image of a teaching Buddha, measures about one inch and an eighth by seven-eighths weighs about fourteen grains, is 620 touch, and is worth about 1 s. 9 d. (14 annas). The Buddha is seated on a lotus-throne and has an aureole round his head.

The silver casket, which was slight and of plain unburnished metal, weighs 7 oz. 29 grains, and is worth about £ 1 15 s. 3 d. (Rs. 17-10). It is about thirteen inches in the middle and stands $5\frac{1}{2}$ inches high, of which $2\frac{1}{2}$ inches are cup and three inches are lid. The body stands on a round rim about half an inch high and rises in a bowl shape, till, near the lip of the bowl, it is cut into a round groove about a quarter of an inch deep. From here the lid, beginning with a narrow double-grooved belt rises about two inches in the form of an inverted bowl. From this bowl the top rises nearly an inch in three tiers, each narrower than the tier below it; the top of the third tier being flat and about an inch and a half across. From the middle of the top rises a pointed boss about a quarter of an inch high. Between the silver casket and the enclosed stone casket were about eighty-six gold flowers less tarnished and rusted than those in the outer copper casket. Of the whole number, thirty-seven were plain round discovered with dots, twenty-six were the many caved *bakuli* or *Mimasops elengi* flowers, nine were

different kinds of discs, nine were spoilt, five were small stars, two were sun-flowers, one was a twelve-leaved flower, and one a flower with four large and four small petals placed alternately.

The stone casket is of brown clay-stone or sand-stone with a smooth lathe-turned surface. It measures eleven and a half inches round the middle and stands about four and a half inches high, of which two inches are cup and two and a half inches are lid. The cup stands on a heavy rim about three-eighths of an inch deep, and rises, with a smooth outward curve, till it meets the lid. The lid rises about an inch and three-quarters, like an inverted cup, in a smooth unbroken inward curve, to a triple-tiered top, the lowest tier a quarter of an inch thick and a quarter of an inch broad, the second tier a convex band about three-quarters of an inch broad, and the third tier a flat rim about an eighth of an inch thick and an inch and a half across. From the middle of the top rises a small pointed boss about three-eighths of an inch high.

Fitting tightly in the stone casket, was a clear crystal casket, about nine inches round the middle and three and a quarter inches high, of which one and a quarter are cup and two are lid. From flat bottom, about two inches and an eighth across, the crystal cup rises with a gentle outward bend, till, at the rim, it is two and seven-eighths inches across. From the rim the lid curves gently inwards for about an inch and a quarter. From this it rises in three tiers, the first a heavy rim standing out about a quarter of an inch, the second a rounded dome about half an inch high, and, on the top of the dome, a flat plate an eighth of an inch thick and half an inch across. From the middle of the plate rises a small pointed boss, about a quarter of an inch high. The inside of the lid is bored in a hole about five-eighths of an inch deep and three-eighths of an inch across. In the crystal cup were nineteen fresh gold flowers, seven with four petals, three with eight even petals and three with eight alternately large and small petals, and one a round disc covered with little knobs.

Inside of the crystal casket, a little too high for its place, was a casket of thin gold of 830 touch, weighing 159 grains, and worth about £ 1 8 s. 4 d. (Rs. 14-3).. It is covered with waving lines of raised tracery in the Greek croll pattern, and in the hollows are rows of minute pushed-out beads. It is about three and a half inches round the middle and about $1\frac{1}{4}$ inches high, of which $1\frac{1}{4}$ inches are lid. The cup of the casket, which has somewhat lost its shape, stands on a thin base and bends outwards in the form of a broad bowl. The lid rises in a semi-circular dome about nine-sixteenths of an inch high. On the dome, separated by a thin round rim, stands a smooth water-pot, or *kalash*, about three-eighths of an inch high, from the mouth of which rises a pointed lid or stopper about a quarter of an inch high. In the

gold cup were ten gold flowers as bright as the day they were put in. Three of them are twelve-petalled, three have eight even, and three have eight alternately large and small petals, and one is four-petalled. There was also a bit of green glass ($\frac{3}{16}$ " \times $\frac{1}{16}$ "), and a little sparks of diamond which has been lost.

Covered with the gold flowers were thirteen tiny fragments of earthenware varying in size from about an inch to a quarter of an inch long. The fragments seem to be of three kinds, two thick, one middling, and ten thin. The thick fragments are about three-eighths of an inch long, and about five-sixteenths of an inch thick. They are dark brown outside and light brown inside. The fragment of middle thickness, which is a little less than one-eighth of an inch thick and a quarter of an inch long, is whitish outside and dark inside. The ten thin pieces vary from seven-eighths of an inch to a quarter of an inch long. They are brown and about one-eighth of an inch thick. The curve of one of them belongs to a circle five inches in diameter.

There is a generally-believed local story that within the last ten years a large stone slab, covered with writing, stood a little to the south of the mound. It was supposed to have been laid close to the well to the north of the mound, as a clothes-washing stone, and to have slipped into the well. But the well was cleared out in April 1882, several feet below its ordinary level, and no trace of the stone was found.

In cutting through the mound, inside of the central relic chamber, about eight feet below the stone coffer, that is under about twenty-two feet of solid masonry and with about thirty-five feet of solid masonry on either side of it, was found a live frog. The frog is said to be the tree frog *Hylarans malabarica* which is rare but not unknown in the neighbourhood of Bombay. It remained for four days, fresh and active, in a glass bottle with about two inches of water.

From the Sopara relic-mound a path leads north-east about 550 yards across some open fields with fine distant views of Tungar and Kamandurg, to the lake and temple of Chakreshvar Mahadev. The lake is about 180 yards long by 120 broad. It is shallow, and, except a stone cistern in the centre, seems never to have been lined with masonry. The temple is at the middle of the west bank of the lake, across the road from a flight of large stone-steps that lead to the water. In front of the temple gate is a square-based modern lamp-pillar. To the south of the temple enclosure is a two-storeyed rest-house, to the west the mean modern temple of Chakreshvar, and, to the north, a small shrine of Maruti or Hanuman. In the centre of the enclosure is a modern basil stand, and in front of it, a head-less bull with well-carved chain and bell necklace which was lately dug out of a well in Sonarbhat about half a mile to the south-east. From the style of carving the bull is probably of about the same age (A. D. 1060) as the Ambarnath

temple. About two yards within the enclosure the path passes over a carved stone which has belonged to a Hindu temple, and the lowest of the four steps that lead into the Chakreshvar temple is also old and carved.

About three yards to the north of the bull, on a plinth about three feet high, with a four and a half feet veranda, is a plain square shrine of Hanuman. Against the back wall of the south veranda lean several old carved stones. The figures on the stone round the right corner, facing the east (about 1'10"×1'9"), are a four-handed Shiv with aureole and a Parvati. To the right of Parvati, above is Ganpati and below Ganpati is Kartikeya, the god of war with his peacock. On the first stone facing the south (2'6"×2') the central figure is the Sun. His two hands, and the two lotus flowers they held straight above his shoulders, are broken off. Round his neck are rich necklaces and a chaplet of beads falls below his knees. The end of his waist-cloth hangs between his legs in heavy folds and a well-carved cloth runs round his thighs. The rich shoes are one of the marks of the Sun god. He stands on the heads of seven horses. On each side are two attendants. The group was probably carved in the eleventh century. To the west of the Sun stone is a long slab (6'6"×1'6") probably of the eleventh century. On it stand a rude modern scare-crowlike figure of Shitaladevi, or the small-pox goddess, and a small figure of the eighth Jain saint Chandraprabha. Against the inner wall of the north veranda of this shrine, the stone (3'×9") with two seated women is apparently a memorial or *paliya* stone in honour of a widow sacrifice or *Sati*.

Two yards to the north of Maruti's shrine is a huge banyan tree of great height and about forty-eight feet in girth three feet from the ground. Several carved stones lean against this tree. Beginning in the south there is, facing east, a memorial stone (5'×1'6") with three panels, the lowest a dead man, the middle a woman worshipping a *ling*, and the top panel (which is broken) the hero in Kailas or Shiv's heaven. About two feet to the west is a broken head of Ganesh (1'8"×1'), the ears clearly cut but the nose broken. The next, the chief of the remains, on a slab about seven feet three inches long, is a beautiful statue of Brahma (6'4"×2') a full length three-heads, a front and two side faces, have richly carved tiaras. The fourth head is not shown as it looks back. The front face has a pointed *rishi*-like beard, the side faces are hairless. The upper right hand holds a *sarvo* or wooden oil-ladle, and the lower right hand a rosary. In the upper left hand is a book-roll representing the *Veda* and in the lower left hand an oil-flask. On each side below are eight-inch female figures, the figure on the visitor's right with wood for a fire sacrifice, and the figure on the left with a wooden oil-holder in her left hand and a butter dish in her right hand. In front of this woman is a small figure with a sword

in its right hand, and, in front of the other figure, is a swan. Brahma wears a plain fillet round his neck with a central and two side bosses, a strip of deer hide over his left shoulder with a deer's head just below the shoulder, and a thick sacred thread falling in a waving line to the thigh. His waist-cloth is held up by a belt with a rich clasp in front. The cloth is tied in a bow over his right thigh and falls in front to about four inches above the knee. From behind a rosary falls in front of the knee. Besides the embossed necklace, Brahma wears large earrings which seem never to have been finished, a pair of plain peaked armlets and a round armlet under the peaked one above the elbow, and wristlets, three and two rings on the left hands and plain bands on the right hands. The hands and nails are beautifully cut and all the fingers of the right hands have rings. The statue was probably carved in the eleventh or twelfth century. It was found about thirty years ago buried in a field in Sonarbhat, not far from where the bull was found. It is still worshipped as Dattatraya. About a yard to the north of Brahma's statue, in a hollow in the tree trunk, is a finely carved six-inch high image of a naked Parasnath, the twenty-third Jain saint, with a five-hooded snake over his head. The image is probably of the tenth century or earlier. There are also two small *lings*, and, on a six inch slab, two women worshipping.

From the Chakreshvar lake the north-east corner of Sopara town lies about sixty yards to the east. Through this corner of the town the road passes about 200 yards between houses whose plinths contain many old carved Hindu stones. From this about 659 yards north-east, the road leads to the Sopara creek which, though there is still a bridge across it, is dry and filled with earth. Twenty years ago boats of twelve tons (thirty *khandis*) used to come from the Manikpur or Bassein side, that is from the south, and there was much fishing and salt making. Now though the land is low, it is dry except during the rains. The railway embankment did much to keep out the salt water, and the land is being gradually taken for rice tillage. From the Vaitarna or Bolinj side, that is from the north, for many years boats have been unable to pass beyond Bolinj. But within living memory rafts of teak have been floated as far as the Sopara landing. Along the west side of the old creek runs a row of palm stems. Twenty years ago they stood five or six feet high, but now they are not more than a foot out of the ground. The people call them Burud Raja's stockade and they look very old. But it seems doubtful whether they are older than the Portuguese or even than the English, who, in 1803, strengthened this part of the creek with a stockade of palm trees.

About a mile to the east of the bridge, or Dadar as it is called, rises a flat-topped hill, about a hundred feet high, known as Nildongri. Its south end has been quarried away, and in the middle of the top are

the ruins of a small Portuguese fort. The yellow trap coffer, found in the centre of the Sopara relic mound, seems to be made of stone brought from this hill. About a mile further east is the Rakshi or Tulinj hill, with a fine basalt dyke. Turning back west from Dadar, that is the Sopara landing, about fifty yards east of the Chakreshvar lake is the Boghatirth or Budtalavdi. This is said to have been once held very sacred and to be lined with dressed stones. It is now neglected and filled with earth. Treasure is said to be buried underground. But it is believed that the first two men who dig will forfeit their lives. From Boghatirth, about seventy yards south-east, at the back of the house of one Jairam Bhaskar Sonar, built into the plinth, is a stone with writing. It records a gift in the month of *Ashadh* (June-July) *Vrish* (?) *samvatsar*, *Shak* 1071 (?) (A. D. 1148 ?). The name of the king appears to be Kur (Hari ?) Paldev. Seventy-five yards more to the east leads to the house of Ibrahim Seth, the chief merchant of Sopara. His house, which is a fine two-storeyed building, is about fifty years old and has much of the rich wood-carving which was then in fashion. From Ibrahim Seth's house, about 150 yards to the south, is the *pokarn*, a Musalman pond about eleven yards by fourteen which is lined with old dressed stones. Close-by are many Musalman tombs.

The Pokarn is almost on the south limit of Sopara. About fifty yards south-east, within Gas limits, is the Khare or Shirmoli pond, about fifty yards south of which was found the statue of Brahma now near the Chakreshvar temple. About fifty yards east of the Khare pond is the Bhatela pond, 240 yards long by 146 broad, whose north and west banks are covered with Musalman tombs, some of them with nicely carved head-stones (about 4' x 2'), with a rounded top inside of which runs a row of lotus flowers and below hang a large central and two side chain lamps. On the north bank is a Hindu stone carved in rich tracery, probably part of the spire of a Shaiv temple of the eleventh or twelfth century.

Close-by in April 1882 were found, carved on a broken piece of basalt (about 16" x 12" x 12"), the remains of six lines of an inscription in the Ashok character, which, on comparison with Ashok's edicts, proved to belong to the eighth edict, of which it forms about one-third. The fourteen or fifteen of Ashok's edicts, which have been found at Girnar in Kathiawar, at Kapuredigadi in Peshawar, at Kalsi in Dehra Dun, at Dhauli in Cuttack, and at Jaugada in Ganjam, have all been in groups, none of them have been separate. It is therefore probable that a complete set of Ashok's edicts was carved near Sopara. As there is no single rock near Sopara suited for engraving the whole of the edicts, it appears, from the kind of stone on which this fragment is cut, that the edicts were engraved on the large blocks of basalt which

are common near Sopara, and that the inscribed blocks were arranged in a row. In time the blocks of basalt were separated, and have been carried away and broken by the people. The fragment preserved is the lower left-hand corner of the eighth edict. The surface of the stone in the extreme left has broken off and taken with it the first letters of three lines¹; what is left contains the remains of the beginnings of six lines. On filling up the missing letters of these six lines from the eighth edict of Girnar, Kalsi, Kapuredigadi, Dhauri, and Jaugada, each line of this edict seems to have contained from sixteen to twenty letters. Counting each line at seventeen letters, probably four top lines have been lost, which would show the original number of lines in the edict to be ten. In the seventh line six letters, which seem to have been left out at the first engraving, have been put in by the engraver in smaller size above the line. This inscription resembles the Girnar edict in using where 1 is used in the Kalsi and Jaugada edicts. Pandit Bhagvanlal proposes the following translation of the edict to which this fragment belongs: "For long, kings have started on pleasure tours where were (which consisted of) the chase and other such amusements. For this reason a religious tour was started by the ten-years-installed king Piyadasi dear to the gods, who had reached true knowledge. In which tour this happens: visiting and making gifts to Brahmins and Buddhist monks, visiting old men, making gifts of gold, looking after the law and the people, giving instruction in religion and making inquiries as to (the state of) religion. By such means, this (religious tour) becomes a source of great pleasure in other parts (of the dominions) of king Piyadasi dear to the gods."

The low tree-covered mound, about fifty yards east of the Bhatela pond, with many Musalman graves and the site of a Portuguese tower, is an old landing-place. About a quarter of a mile to the south-east boats of ten to twelve tons still come at high tides. Returning west along the north bank of the Bhatela pond and passing between the Bhatela and Khare ponds, about one hundred and fifty yards south, is the *Ramkund* or Rama's pool. This was once a famous place of pilgrimage, and is mentioned in one of the Nasik cave writings, probably of the first century after Christ. No one from a distance now visits Rama's pool though. In *Shravan* (July-August), Sopara Hindus of all classes come to bathe. It is a steep-sided deeply-shaded pool about forty-five feet square. The upper fifteen feet of the sides are steep earthen slopes. Below the earth are eleven steps of roughly dressed stone about nine inches broad and six inches deep. On the east bank

¹ The letters preserved are, 5th line, *Nikhamitha sam* (nine letters lost); 6th line, *Heta tyam hoti bambha* (eleven letters lost); 7th line, *ha vadhanam dasane hiramnap*

was a broken *ling-case* or *shalunkha*, used as a hinge for turning a Persian wheel, and several broken images a little to the south.

About 175 yards to the south, in a part of the Gas village lands called Sonarbhat, is a small mound, at the east foot of which is a broken cross-legged female figure (2'×2'), perhaps Ambika. Close to this spot large earthenware cups are said to have been found some years ago. The Chakreshvar bull was dug out of a well about fifty yards to the west. To the east of the mound is a defaced carved fragment apparently of a spire niche. The temple, which is said to have been dedicated to Parasnath, seems to have been of considerable size as there are remains of foundations about fifty yards to the west. About 200 yards to the south-east, at the road side, is a damaged sculptured stone (2'6"×2'), the main figure in which is perhaps the Sun, as he holds a lotus in each hand. It is apparently part of an entrance door probably of the eleventh or twelfth century. From this stone nine modern steps lead to a garden where is the tomb of the Musalman saint Shaikh Akbar-moi-ud-din. Round the enclosure a row of very large old bricks (16"×10"×3") are arranged as a border. They were found about 120 yards to the south-west, at the corner of two roads, where many others may be seen built into a new well.

About 300 yards west of the place where these old bricks were found is Gas lake, a winding hollow, 120 yards broad and 800 long with two cross-dams. The sides are fringed with gardens and Persian wheels. On the east shore of the lake, about 110 yards from the north end, is a richly carved stone lotus-pendant. On the bank above, in a spot known as Mala, a few other dressed stones and lines of foundation walls can still be traced. It was probably a Brahmanic temple of the eleventh or twelfth century. At the south end of the lake are the remains of a flight of dressed stone steps. From the south end of Gas lake, about 150 yards to the south-east, is the village of Gas, which, according to the people of the place, is the site of old Sopara. In front of one Degu Pobria Mattara's house is a smooth six-sided block of basalt about two feet broad, two and a half long, and two feet high. It is used as a clothes-washing and bathing stone and apparently for grinding curry powder. On its smooth top are carved in large Pali letters, perhaps about B. C. 200, the letters "Badhaya", that is, of Badhu" apparently some one's name. About three years ago the stone was struck against in ploughing Kaklar's field close to Brahma hill. It is probably a grave-stone. Passing through Gas many of these blocks of basalt are notable in front of verandas and built into plinths. None seem to have letters except one about 200 yards to the south-west of Degu's house, at the other end of Gas village, in front of the house of a Samvedi Brahman, Bab Naik by name. This block, which is about a foot and a half across and a foot and a half high, is carved

on two sides. On one side are the letters "Kodasa Kalavadasa", that is, "of Kalavad the Dod", and, on the other side, "Ugudeveya", that is, "of Ugradeva". Like the letters cut in Degu's stone these letters are Pali, probably about B. C. 200, and, like Degu's stone, this was brought from near Brahma hill. About half a mile south of Bab Naik's house, on the way to Achola village, the sides of the lane are in places fringed by broken lines of large blocks of basalt. This line of basalt blocks is known as the stone dam, *dagdi bandh*, and seems to be the remains of an old foot way raised across the low muddy land to the south of Gas. Traces of similar foot pavement are found in other hollows in the Sopara lanes, near Bolinj, and, still more, in the low lands between Gas and Brahma hill.

The stone dam or *dagdi bandh* is the last object of interest. From it there remains about a mile and a half of return road to Chulna village, and from Chulna village about two miles east to Manikpur.

A second day may be spent in the morning, in visiting Vajirgad hill, about four miles west of the Manikpur bungalow, and seeing the remains of its Portuguese fort, and, perhaps, traces of a rough old wall of blocks of basalt and brick work. The afternoon may be passed in visiting Achola, a mile and a half to the north of Manikpur and seeing its Portuguese fort. About a mile to the north of Achola, near the top of the west face of the steep *Rakshi Dongar* or Tulinj hill, perhaps above 300 feet above the plain, is a fine basalt dyke, the rock is dark, glistens with mica, and when struck rings like an anvil. The basalt pillars stand out from the edge of the hill sometimes in single columns, in other places in groups wedged close together, running into the hill with a south-east slope. The pillars are black and six-sided, the faces generally from nine to ten inches broad, and the length varying from six to twenty-two feet. The dyke is only the ruins of what it was thirty years ago. Many of the pillars were used when the railway was made, and the people still carry them away, setting them rolling down the steep hill-side, and gathering the fragments when the pillar shivers to pieces at the foot. Across a ravine to the east is a curious circle of large upright basalt pillars.

At Bolinj, about two miles north of the Sopara relic-mound, a stone ($2'2'' \times 1'2'' \times 8''$), with writing in Devanagari letters, was found used as a door step in the house of a Christian, named Juju Manu Lop, that is, Joseph Manuel Lopaz, and in Devhara pond, in the same village, there are said to be some carved stones. Bolinj was formerly a large town and probably had rich temples, but no remains were seen. About half a mile south-west of Bolinj, in the hamlet of Koprad, an inscribed stone ($3'5'' \times 1'2'' \times 7''$) of the fifteenth century was found near the house of the headman Bhiku Patil, a Samvedi Brahman. A third inscribed stone ($3'2'' \times 1'4'' \times 8''$) was brought from a well in Vagholi

about a mile west of Sopara, but was so worn as to be illegible, and was left close to the east of the relic-mound.

TAKMAK FORT

Takmak fort, which was used by the Mahim rulers chiefly as a place of confinement, is situated amidst a rough-wooded country. It stands atop a hill rising to a height of nearly 609-600 metres (2,00 feet) and lies about 24-140 kilometres south-east of Mahim, a little to the north-east of the confluence of the Tansa and Vaitarna rivers. Takmak is really a fortified height rather than a fort since it consists of a hill-top 365-760 metres (400 yards) long by about 91-440 metres (100 yards) broad enclosed with works at only two places where it is accessible. For some time, the fort was in Portuguese possession from whom it was captured by the Marathas. In 1817 it became a part of the British territories. All that remains of the works are two small gate-ways with a low ruined retaining wall on each side. In 1818 despite the natural strength of the hill, the works were so greatly weakened by exposure and long neglect that the fort was easy to capture either by surprise or by assault. The wooded and rugged country-side around the fort facilitated the hiding of an attacking party nearly upto the foot of the works, which, in places, were no more than a wall of loose stones. On the top of the hill there were nine ponds yielding sufficient supply of water and a few scattered huts occupied by the garrison. In 1862, the Takmak works were so ruinous as to add nothing to the strength of the hill. The water-supply was destroyed to prevent robbers and insurgents making it their lair in case the fort ever fell into their hands. The fort now is practically desolate and very rarely frequented.

About ten kilometres north of Takmak at the Sativli hot-spring there are the remains of a Hindu temple, large blocks of carved stone, two broken bulls or *nandis*, and two broken *ling*-cases or *shalunkas*. Nearby are two hot-water reservoirs.¹

TANDULVADI FORT

Tandulvadi fort, standing on a (579-120 metres) 1,900 feet high hill at the southern end of the Mahim range, is situated about sixteen kilometres south-east of Mahim and 4-80 kilometres north-east of Safala station on the Western Railway. It was captured by the Marathas in 1737. On the hill-top are several rock-cut cisterns of great age, and signs of large rough fortifications. On the east at the foot of the hill, flows the Vaitarna. Near the river, also at the foot of the hill, is

¹ Mr. W. B. Mulock, C. S.

Lalthan village. The village has a reservoir said to have been built by the Portuguese, which is in a fair state of preservation.

THANE

Thane or Sthan that is the settlement also known in the past as Konkan Thane being the head-quarters of the Konkan kingdom of the Shilaharas, is located in 19°11'30" north latitude and 73°3' east longitude and is the head-quarters of the district bearing the same name. It is a railway station on the Central Railway located at a distance of 34 kilometres to the north-east of Bombay V. T. This former head-quarters of the Salsette sub-division is prettily placed on the west shore of the Salsette Creek, in wooded country, between the Yeur range of Salsette hills on the west and the steep picturesque Parsik peaks on the mainland to the south-east. The fort, the Portuguese Cathedral, a few carved and engraved stones, and several large reservoirs are the only signs that go to show that Thane was once a great city.

The municipal town of Thane is situated at an altitude of 8.2 metres and receives an average annual rainfall of 2,477.5 mm with maximum and minimum temperatures being 37.0°C and 20.0°C, respectively. The town covers an area of 26.16 square kilometres and is divided into forty wards and 248 blocks. It has a total population of 1,70,675 souls, as per the Census of 1971. The total number of occupied houses was 32,419 with 36,130 households, as per the Census of 1971. The total length of roads in the town measures 48.20 kilometres being *pucca* roads in its entirety. Part of the town has only an open drainage system, night-soil being carried away by hand-carts and tractors and trollies. The town gets protected water-supply from a service reservoir with a capacity of 1,35,00,000 litres. Fire-fighting services are available in the town. The town has been supplied with electricity and as per the Census of 1971, had 39,485 domestic connections, 1,299 industrial connections, and 6,157 commercial connections besides 1,153 road-lighting points. In 1969, there were in the town as many as fifteen hospitals, 127 dispensaries, a family planning centre and a large number of private practitioners and specialists that cater to the medical needs of the town population. All the hospitals put together had a total strength of 1,900 beds, dispensaries, of 200 beds and a family planning centre, of twelve beds. Educational facilities to the town population were then provided by twenty-two primary schools, one middle school, six high schools besides two type-writing institutions and seven other types of vocational training institutes. Facilities for higher education are provided by colleges giving instructions in the faculties of Arts, Science, Commerce and Law. The Bedekar Vidya Mandir also conducts courses in Computer Programming, etc. There are

eight cinema theatres that provide recreational facilities to the town population. Besides, there are two public libraries, namely, Mullock Library and Thane Marathi Grantha Sangrahalaya, and recreation centres like Gadkari Rangayatan, swimming pool, and a stadium.

Thane, of late, has become a great industrial centre in the State and a number of large and medium scale factories have been set up around the town. Factories manufacturing woollen cloth and a chemical complex are in the vicinity of the town. Thane is a junction of the State Transport services. A depot as also a workshop of the State Transport are located in the town.

The population of the town which stood at 14,456 as per the Census of 1881, rose to 1,01,107 as per the Census of 1961 and further to 1,70,675 as per the Census of 1971. This phenomenal increase in the population of the town can mainly be attributed to its proximity to Bombay, which has always faced acute shortage of accommodation, as a result of which the town has assumed the appearance of the suburb of Bombay to which it is connected by local trains running between Boribunder, i.e. Victoria Terminus and Thane with fairly high frequency. A number of co-operative housing societies have also come up in the town.

The description of Thane, as it appeared in the old *Thana District Gazetteer* published in 1882 gives an interesting information about the old town of Thane and hence is reproduced below :—

“Except part of Chendni, the fishermen’s suburb to the south, which contains a landing-place, a customs-house and a railway siding, the town of Thana lies to the north of the railway. On the south-east, along the banks of the creek, lie the Chendni, and further north the Mahagiri quarters of the town, with a large number of boatmen’s and fishers’ houses. Between Chendni and Mahagiri lies a salt swamp of some thirty or thirty-five acres, which was reclaimed in 1880 by a dam. The Bazar or station road runs half a mile north from the station to an open space or square, where it meets the Agra road. It is lined by small tiled houses and poor shops, showing little but the most ordinary brass-work, cloth, and groceries. About a quarter of a mile from the station, to the east of the road, stands the Hirakot or Diamond Fort, now the *mamlatdar’s* office. To the west stretches the large Massunda lake, with its west bank faced with broad stone steps and crowned with a Hindu temple, and, on the north bank, the Portuguese Cathedral and other picturesque buildings. Between the main road and the lake is the large Kopineshvar temple, and close-by, down a street on the other side, are the meat and fish markets, at the end on the road is the vegetable market, and in the open space at the meeting with the Agra road stands, on the east side, the Collector’s house, a fine double-storeyed building with a large garden

in which are the Collector's offices and treasury. To the west are the new Byramji Jijibhai high school and the Wadia dispensary, with, close-by the public library and a curious domed building. This was intended for an English school, but, since the opening of the high school (1880), it has been occupied by public offices. Around are the dwellings of pleaders, traders, and other well-to-do natives, double-storeyed with high tiled roofs and gaudily coloured walls. Along the Agra Road, towards Bombay, is the Portuguese Cathedral, and, a little beyond, the new Marathi school. To the east after passing between the Collector's and Judge's houses, the Agra road comes out on a wide park-like esplanade crossed by broad tree-lined roads, with the fort or jail in the east, the English church in the north, open wooded ground with the civil hospital and the remains of the assistant judge's house to the west, the Judge's and Collector's residences to the south-west, and, to the south more well shaded European houses, and the neat police lines formerly used by the Native Infantry Regiments. This pleasant esplanade, with the double-bridged creek and the wild Parsik hills to the east, and wooded rice-lands and hill-sides to the west, forms a pretty scene which, especially during the rains, is in many points more like an English than an Indian view.

North of the church lies the Khatarvada or weaver's quarter and beyond, at the north extreme of municipal limits on the edge of the Gosala pond is Colonel Atkin's bungalow. Along the creek between Chendni and Mahagiri, a dam, pitched with stone on its eastern face and provided with two sluice gates, was built in 1880 at a cost of £ 329 (Rs. 3,290). This dam has reclaimed from thirty to thirty-five acres of salt marsh behind the Hira Kot, which formerly caused much annoyance and ill-health, as the tide washed up and left on it filth from the latrines on the creek. The latrines are now cleaned by the tide without expense or establishment, and the area of salt ground, which has been obtained by the municipality from the Government on the Gujarat reclamation terms, is being gradually filled by town sweepings."

The situation of Thane has now undergone a radical change and it is now, excluding the old parts of the town, very well planned, with its suburbs extending far beyond its former limits.

The old *Thana District Gazetteer* also mentions the following regarding the sea-trade of Thane :—

"There are four landings or *bandars*. Mandvi near the local funds bridge, Liberi and Bendi in Mahagiri, and Chendni to the south of the railway line. The sea trade returns for the five years ending 1878-79 show average exports worth £ 22,825 (Rs. 2,28,250) and imports worth £ 32,266 (Rs. 3,22,660). Exports varied from £ 9,973

(Rs. 99,730) in 1875-76 to £ 35,330 (Rs. 3,53,300) in 1878-79, and imports from £ 18,564 (Rs. 1,85,640) in 1874-75 to £ 57,759 (Rs. 5,77,590) in 1876-77. The station traffic returns show an increase in passengers from 3,12,309 in 1873 to 4,60,642 in 1880, and in goods from 2,644 to 16,343 tons.

Want of good drinking water was once a great evil in Thana. Many of the wells ran dry in the hot weather, while others are so near latrines and privies that their water was unwholesome. Since 1830 repeated attempts were made to provide a proper supply of water. But want of funds and other difficulties prevented any steps being taken, till in July 1880 the Pokran scheme was sanctioned. The Pokran water-works were calculated to provide eight gallons of water a day to the whole municipal population. For a non-manufacturing town like Thana, this supply should be, and, so far, has proved to be enough. The scheme consisted of a storage reservoir with head works, including outlet and waste-weir, a main to the town, and distribution hydrants. The storage reservoir is at the foot of the eastern slope of the Salsette hills, about two miles north-west of the town. The water is impounded by an earthen dam 1,005 feet long with a greatest height of $31\frac{1}{2}$ feet. In the centre of the dam is a clay puddle-wall ten feet wide, well punned and rammed and taken down to the solid rock, in some places thirty feet below the surface. At the north end of the dam is the waste-weir, which is forty feet wide, with a sill $6\frac{1}{2}$ feet below the top of the dam, and calculated to carry off a rainfall of two inches in one hour, with a depth of 1'6" over the sill. The surface area of the reservoir, at the level of the waste-weir sill, is 4,89,400 square feet, and the cubic capacity 43,04,320 cubic feet, equal to twenty-seven million gallons. The outlet is by means of a masonry tower, provided with valves at every five feet, from which a pipe ten inches in diameter, embedded in concrete, passes below the dam in a trench cut in the solid rock. The main is a cast-iron pipe seven inches in diameter, provided with a sluice valve near the storage reservoir, and ending in the valve and meter-house at the entrance to the town, where the pressure and quantity of water used daily are registered and controlled. Cast-iron pipes of suitable sizes and fitted with the necessary valves distribute the water to sixteen public hydrants with sixty-seven taps in different parts of the town.

Each hydrant has from one to eight taps, according to the number of people who are likely to use it. The Jail is supplied from the town main. The storage reservoir is calculated to hold enough water, after deducting loss by evaporation, to give a daily supply of $5\frac{1}{2}$ gallons to the whole municipal population which is taken at 15,000. In addition to the stored water there is the yield of a spring in the reservoir basin which has been gauged at 37,500 gallons in twenty-four hours in the hot weather, making a total available daily supply of eight gallons

a head. The works were begun in November 1880, water was supplied to the town in July 1881, and the whole was completed and formally opened in August by Sir James Fergusson, Bart, K.C.M.G., C.L.E., Governor of Bombay. The total cost of £ 8,463 (Rs. 84,630) was provided partly from municipal funds and partly from the Thana district local funds."

Now scarcity of water is very rarely felt. The water-supply to the town no longer comes from Pokran and wells no longer supply water to the Thane populace. The water-supply is now mainly from Tansa and Vaitarna at the behest of the Bombay Municipal Corporation.

History : The earliest reference that has been traced to Thane is, that in 636 when it was rich enough to tempt Usman *bin* Asi Sakifi, Governor of Bahrain and Oman, to send a plundering expedition from the Persian Gulf. About thirty years later (660) it was again sacked by the Arabs. In the beginning of the tenth century (913) Masudi mentions it, under the names of Thana and Tabeh, as one of the chief towns. About a century later, Al Biruni (970-1039) speaks of Thane as the capital of the Konkan, about forty miles south of Subara. In a copper-plate of 997 it is mentioned as Shri Sthanaka, where a royal festival took place and a grant of a village was made. Twenty years later (1018) another copper-plate states that Shri Sthanaka was one of the chief towns of a family of Shilahara chief, who ruled over 1,400 Konkan villages. In 1026 and 1094, Shilahara copper-plate inscriptions mention Shri Sthanaka and the port of Shri Sthanaka. In the twelfth century (1153) Idrisi refers to it as Banah, a pretty town on a great gulf where vessels anchor and from which they sail. In an inscription stone of Someshvar, the twentieth Shilahara chief, dated 1260 (*Shak* 1182), a grant is recorded to Uttareshvar of Shri Sthanaka.

At the close of the thirteenth century the fortunes of Thane seem to have been at their best. It was a great kingdom, both in size and wealth, inhabited by idolaters with an independent ruler. The king was in league with corsairs who plundered merchants and gave him all the horses they caught. No ships came without horses and the king had no horses of his own. There was much traffic with many ships and merchants, who imported gold, silver and copper, and exported brown incense, cotton, cloth, and leather of various excellent kinds. About the same time Ab-ul-Fida (1273-1331) speaks of Thane as the best city of the province of Al Lar, celebrated for producing *tanasi*, a kind of cloth, and *manna* or bamboo-sugar *tabashir*. In 1310 Rashid-ud-din speaks of Konkan and Tana, (1342) writes Kukin-Tana, and in the Portulano Mediceo of the middle of the fourteenth century it is Cocintana, and in the Catalan map (1375) Cucnana.

In 1318, Thane was conquered by Mubarak Khilji and a Musalman governor was placed in charge. A few years later (about

1320), four European friars, Thomas of Tolentino, James of Padua, Peter of Senna and Jordanus of Severac in France, with Demetrius, a Georgian lay-brother, good at the tongues, came to Thane. They were received by Nestorian Christians, of whom there were fifteen families. Four of the friars according to one account because of their great success as preachers, and according to another account because they reviled the Prophet Muhammad, were put to death by the Musalman governor. Friar Odcric, who visited Thane a year or two later (1324), speaks of it as a city excellent in position, with a great store of bread and wine, and abounding in trees. The people were idolaters, worshipping fire, serpents, and trees, and had some odd marriage customs.

The land was under the dominion of the Saracens. There were great numbers of black lions, monkeys, baboons, and bats as big as pigeons. The oxen were very fine, with horns a good half pace long and a camel-like hump upon the back. The rats, called *scherpi*, were as big as dogs, and were caught only by dogs, cats being no good against them. The rees gave a very intoxicating wine.

Ibn Batuta (1344), who, as is noticed above, calls it Kukin-Tana, mentions that from it, ships of large burden went to Aden. A few years later (1347), by the rise of the Bahamani dynasty and the change of capital from Daulatabad south to Kulbarga, the coast trade centred at Chaul and Dabhol instead of at Thane. Thane seems to have become part of Gujarat. Early in the fifteenth century (1429) a Bahamani general took Thane and Mahim, but Ahmad I (1411-1443) of Gujarat sent a strong land and sea force, and recovered both places. In 1430 it was made the capital of one of the five provinces into which Mahmud Begada (1459-1511) divided his realm. Still it lay at the extreme end of their territory, and its Gujarat rulers were powerless to bring back to it any considerable share of foreign trade. In 1514 it was a fortress of the Gujarat king, and had a Moorish town near it, very pleasant with many rich gardens, great Moorish mosques, and gentile temples. Its trade was small and its harbour troubled with pirates.

In 1529, terrified by the defeat of the Cambay fleet and the burning of the Bassein coast, "the lord of the great city of Thana" became tributary to the Portuguese. This submission did not save him in the war that followed (1530-1533). The city was thrice pillaged, twice by the Portuguese and once by the Gujaratis. It was then, under the treaty of December 1533, made over to the Portuguese. In 1538 Thane and its suburbs, with gardens and pleasure houses, measured about four miles round. It had sixty temples and mosques and sixty ponds, some of them two-thirds as big as the Rocio of Lisbon, and all built of well-wrought stone, with many steps, as if in a theatre. Some of the temples

were of cut-stones ; others were of bricks beautifully laid one on the other, unjoined by cement but without a crevice. The city had not recovered its three recent burnings. Though an emporium and the chief town of a great part of Gujarat, its people were few and its suburbs, once with 900 gold cloth and 1,200 plain-cloth handlooms, were empty. It was a desert rather than a city.

Under the Portuguese, Thane entered on a fresh term of prosperity. Before 1540 the successful Franciscan Antonio do Porto had built a cathedral, *A Igreja da Se*, under the invocation of Nossa Senhora da Conceicao, and "out of the stones of twelve temples round a great lake", had raised the church of St. Anthony. In 1552, the Jesuit Father Melchior Gonsalves built a church to the The Mother of God, *A madre de Deus*, and about the same time an orphanage and a college were founded. In 1574 the Augustinians built a church and convent of Our Lady of Grace, Nossa Senhora da Graca ; in 1582 the Franciscans built a convent of St. Anthony ; in 1605 the Jesuits built a church of Our Lady of Rosary, Nossa Senhora do Rozario ; and, in 1609, a church of St. John, Sam, Joao. The city included ten hamlets, *pacarias* or *pakhadis*, and was enriched by the presence of many nobles who had country villas and gardens. In 1585 it was very populous with Portuguese, Moors, and Gentiles. Rice was the only export ; but there were many makers of *armesia* or silk and weavers of girdles of wool and of black and red bombast. At this time Thane was famous for its docks, where, in 1588 six small vessels were built and fitted out. At the close of the century, it was a fortified town with a great number of converts. Many boys and girls, bought for a few pence, were trained in doctrine, shoe-making, tailoring, weaving, and ham-curing. In 1618, Thane, like Basein, suffered from a terrible cyclone. When the storm began to rage, the Jesuit Fathers of the Thane college, as if moved by one mind, fled to the church to pray. Their piety saved them. While they spent the night in prayer their house was dashed to pieces, but without the loss of a life. In 1634 it was a place of some trade and manufactures. There were looms for silk and cotton, and manufacture of desks and tables of blackwood inlaid with ivory. Inside the town there were two churches, the cathedral and St. John's Church, and four convents, the Augustins with twenty, the Capuchis with twelve, the Jesuits with eleven, and the Dominicans with two members. Outside the town were two chapels, the Jesuits' Nossa Senhora do Rozario and the Augustins' Nossa Senhora da Graca. Of fortifications there were the captain's square bastioned fort called Reis Magos, armed with two four and one eight pounder guns and there were two towers Sam Pedro and Sam Jeronimo. The staff was a captain or *Thanadar*, with a garrison of eighty Portuguese, 100 natives and 150 slaves ; a judge or *ouvidor*, with five peons ;

a police magistrate or *meirinho*, and five peons ; a jail-keeper, and customs-house clerk.

In 1675 the town was built of low tiled houses ; good silk and cotton stuffs were made and there were seven churches and colleges, the chief being that of the Paulistines of Jesuits. Twenty years later (1695), Thane is described as in an open, excellent country protected by five small forts garrisoned and furnished with cannon. It was famous for calicoes, no place in the Portuguese dominions exceeding it in this particular even for table service. The country round Thane was highly tilled and adorned every two or three miles with rich mansions. On a rising ground, three miles from Thane, was the seat of Jao Melo with terraced walks and gardens ending at the water site in a banqueting hall. A mile further was Greboundel or Ghodbandar, the property of Martin Alphonso, said to be the richest land-lord on this side of Goa, a fortified mansion with a stately church. Hamilton (1720) in his account of the coast passes over Thane without a reference. In the decay of Portuguese power this rich territory was poorly guarded. There was (1728) no fort at Thane, only near the creek three small towers with three or four men in each. The importance and the weakness of Thane were brought to the notice of the Portuguese government, and the building of a fort was sanctioned and begun. The work was in progress, when, in April 1737, a Maratha force entered Salsette. The governor of Salsette, who was then at Thane, retired to Karanja. But the fort, though unfinished, was bravely defended. Two assaults were repulsed when the defenders capitulated as the Marathas seized and threatened to slaughter their families. Next year Colonel Pedro de Mellow, with about 500 European and 4,000 Indo-Portuguese, stormed and destroyed the batteries of Asheri, and made a great effort for the recovery of Thane. But the Bombay governor apprised the Marathas of the intended expedition, and Malharav Holkar arrived in time to repulse the attack on the fort which was led by Don Antonio Frois, the Portuguese governor of Bassein and Salsette, who fell in the attempt. In 1739, with the loss of Bassein, Portuguese power came to an end. The mansions of the gentry were abandoned and their owners retired to Goa and Bombay. Though they did little to improve Thane, the Marathas treated the native Christians well, allowing them to keep some of their churches and leaving them free to practise their religion. The native Christians, though deserted by their European pastors, had still the Salsette priests, and held their festivals with the same pomp as at Goa, without risk, even with a certain respect on the part of the Gentiles.

In 1750 Thane is described as a small shady city, rich and pleasant, once Portuguese now Maratha. It was bathed by the Bet river with a rocky bed which could be crossed at low tide. On the river side it

had low walls. To the north it was sheltered by a fort in European fashion, in the middle of which was the church and convent of St. Dominique. The other churches except the church of St. Francis which was still in use, were ruined or pulled down. In 1771 the English, urged by the news that a fleet had left Portugal to recover Salsette and Bassein, determined to gain possession of Thane. An envoy was sent to Poona to negotiate the cession but his proposals were rejected. Meeting with a second refusal, the Bombay Government determined to take Thane by force. On the 12th of December 1774, under General Robert Gordon, 600 European and 1,200 native troops left Bombay for Thane. On the 20th batteries were opened and a breach was made on the 24th. On the 27th an attempt to fill the ditch was repulsed with the loss of 100 Europeans. But on the evening of the 28th the fort was carried by assault, and the greater part of the garrison were put to the sword. During the siege Commodore Watson, who was in command of the naval force, was mortally wounded by particles of sand driven into his body by a cannon shot which struck the ground close to him. Mr. Forbes, who visited the town so soon after that it was still desolate from the siege, describes the fort as a pentagon with regular bastions, curtains, and towers, mounting more than a hundred cannon. Most of the guns were damaged or dismounted. It had been built by the Portuguese and altered by the Marathas. The English engineers cleared away houses and gardens to form an open space round the fort. Half a mile from the fort was a Portuguese church pleasantly situated on the side of a large pond surrounded by mango and tamarind grove. The fortifications were new, modelled and improved. The fort was made strong and kept in the highest order. Its usual garrison was battalion of sepoys and a company of European artillery from Bombay. Ten years later (1784), on a second visit, Mr. Forbes described Thane as a flourishing town, the fortifications repaired, the Maratha houses improved or re-built, and the commandant's house changed into a commodious residence. In 1804 Lord Valentia mentions Thane as a small fort commanding the passage between the island and the Maratha country, otherwise of little use. In 1825 it was chiefly inhabited by Roman Catholic Christians, either converted Hindus or Portuguese who had become as black as the natives and assumed all their habits. The town was neat and flourishing, famous for its breed of hogs and for the Christians' skill in curing bacon. In 1828 Hamilton mentions it as a straggling place, but not very large, with several Portuguese churches and many Christian inhabits. In 1826 and again in 1862 its population was returned at 9,000.

Objects : The town being of great antiquity and an important industrial and commercial centre in the vicinity of Bombay, the *prima*

dona of India, there are a number of objects of interest in the town. A description of the few of the important objects of interest is given in what follows.

Fort : The fort, now used as a jail, is a Portuguese building. Strong stone-built walls from sixteen (4·877 metres) to twenty-one feet (6·096 metres) high, provided with regular bastions and towers, enclose an area of $13\frac{1}{2}$ acres (5·463 hectares). The fort was begun by the Portuguese about 1730 and in 1737 though unfinished offered a stout but unsuccessful resistance to the Marathas. It was completed by the Marathas on the original plan, and, when taken by the English in 1774, was armed with more than a hundred cannon. In 1816 the *Peshwa's* minister Trimbakji Dengle who was charged by the British of the murder of Gangadhar Shastri, the Gaikwad's envoy, was imprisoned in the fort and, though guarded by a strong body of Europeans, made good his escape with the help of hints sung to him by a Maratha groom.

In 1869 plans for improving the jail were sanctioned, and by 1876 the changes were completed at a cost of £40,800 (Rs. 4,08,000). The tower near the west gate was made into a guard-room and a house for the superintendent. The buildings inside of the walls were pulled down and barracks built radiating from a central open space. A transport ward, a female ward, and a hospital were also built shut off from the main or central part and from one another. The building has ample room for a thousand prisoners. In the jail garden, laid as a pavement to a summer-house, are some inscribed Portuguese grave stones which were found in clearing away one of the fort buildings, probably the church at St. Dominique. To the west and south-west of the jail is the esplanade, which, in 1776, was formed by order of the Directors by clearing away the houses. On the southern end of the esplanade are the police lines. Between the lines and the Liberi landing-place stood the large warehouses used in Portuguese times, when the State assessment was taken in rice.

Hirakot or Diamond fort : The Hirakot or the Diamond fort is located in the centre of the town and was formerly used as the town jail. It seems to have been largely added to in 1824. In 1861 Government abolished it as a town jail, removed the prisoners to the fort jail and offered the building to the Mauritius government as an emigration depot. The offer does not seem to have been accepted. Since 1862 it is used as the *mamlatdar's* office and Collector's record-room. Located in the fort at present are the offices of the Prant Officer, Bhiwandi, the *mamlatdar*, Thane and the Police Inspector. A police custody where prisoners are detained temporarily is also located in the fort. Excepting the wall at the back, nothing remains to show the building of being that of a fort.

Churches : Of the churches in the town, two, namely, the church of St. John the Baptist and the English church or the St. James church are worth mentioning.

St. James Church.—St. James Church, also known as the English church, was built in 1825 at a cost of Rs. 48,039 and was consecrated in July of the same year by Rt. Rev. Reginald Heber. The church, managed until the dawn of Independence by the Government, is now under the management of the Bombay Diocesan Trust Association. The denominations worshipping in this church are the church of north India, both English and Marathi speaking, Tamil Methodists, Kerala Syrian Marthoma and Syrian Orthodox. This church is located near the jail reservoir. The church celebrated its 150th anniversary in July 1975.

Church of St. John.—The church of St. John the Baptist is one of the numerous churches and religious houses built by the Portuguese in the sixteenth and seventeenth centuries. It is prettily placed on the north side of the Massunda lake, which was formerly known among the Christians as the lake of Saint Anthony. The church measures 130 feet (39·624 metres) long by thirty-eight feet (11·582 metres) wide and fifty-nine high. It was a short square tower at the north end and quaintly carved doors on the south. The tower is much out of repairs, but otherwise the church is in good order and is in use. The height of the belfry is seventy-two feet (21·946 metres). The bell is one of the largest Portuguese bells in India. An Anglo-Portuguese school with an average attendance of sixty-three pupils is held in the church lobby. The building originally belonged to a conventual church dedicated to St. Anthony of Padua by Franciscan friars about 1540. When the original church of St. John the Baptist was destroyed, St. Anthony's church was made the Parish church and dedicated to St. John the Baptist. It is said that in order to build the church and convent of St. Anthony, Antonio do Porto pulled down twelve *pagodas* which were round a great lake doubtless the Massunda or St. Anthony's lake, and built his church with the stones of the Hindu temples. The truth of this account is borne out by the numerous handsomely carved stones which are still visible in the wall of the church enclosure, and by the fact that, in 1881, when part of the lake was cleared of silt, many mutilated and well-carved images were found. They had probably been thrown into the lake by the Portuguese when the Hindu temples were pulled down. The early Portuguese supposed that this was the place where the four Franciscan friars were murdered in 1324. The church seems to have been more than once repaired or improved. A cross bears the date 1609, a side door-way at the south end of the church has 1663, and the main entrance has 1725.

Temples : In the town there are a number of Hindu temples and two Jain temples. A description of a few of these temples is given in what follows.

*Kopineshwar Mandir .—*The temple dedicated to Kopineshwar Mahadeo is a large cut stone building. It was raised by *Sarsubhedar* Ramaji Mahadeo Bivalkar in about 1760 after Salsette had fallen in the hands of the Marathas. It stands to the east of the municipal garden named after Mahatma Gandhi and laid and managed by the municipal council and is said to have been built in honour of Kopineshwar that was found under the water.

It formerly enjoyed an yearly Government allowance of Rs. 105, and was repaired in 1879 by the Hindu community, at a cost of Rs. 8,000. Within the enclosure of the Kopineshwar temple are six small shrines dedicated to Brahmadev now commonly known as Panchamukhi Mahadeo, Rama, Maruti, Shitladevi, Uttareshtar, and Kalikadevi, of which the shrines of Uttareshtar and Kalikadevi formerly enjoyed allowances from Government of Rs. 42 and Rs. 60 per annum. Opposite to the shrine of Kalikadevi is another shrine dedicated to Gayatridevi in front of which are two lamp-posts, one on each side.

At the main entrance of the temple is the Shiva's bullock or *Nandi* above which is constructed *nagarkhana*, i.e. drum chamber. By the side of the entrance to the main shrine, are two lamp-posts. The *shalunkha* or the *Pindi* is made of white marble. The shrines dedicated to Shri Rama and Shri Hanuman have been renovated recently. A shed has been constructed in the temple compound for performing after-death rites. The management of the temple vests in a public trust created in 1951. The income of the trust from all the sources during the year 1975-76 was to the tune of Re. 80,000. The trust has a depreciated fund of Rs. 60,000.

*Vitthal Sayanna Datta Mandir .—*The temple dedicated to the Lord Dattatraya is known as the Vitthal Sayanna Datta Mandir and is named after the person who undertook the construction of the temple at the instance of Shri Narayanand Maharaj who took *samadhi* in 1910. The deity was consecrated on 8th September 1912. The temple compound covers an area of about 13 to 14 thousand square yards, of which the actual shrine covers an area of 700 to 800 square yards. *Datta Jayanti* is celebrated at the temple for eight days when about a lakh of devotees pay visit to the temple. *Gokulashtami* is also celebrated at the temple for two days. The entrance of the main yard is flanked by the idols of Garuda and Hanuman and those of the *dwarपालs*, i.e., gate-keepers. The temple has a fairly large *sabha-mandap*, audience hall supported by 26 pillars. The idol of the Lord Dattatraya is placed in an inner chamber or *gabghara*. The idol is placed on a raised platform constructed in white marble. Above the idol is

a silver canopy. In the compound opposite the shrine in the garden has been erected a life-size statue of Vitthal Sayanna.

Lakshmi Narayan Mandir.—It is a private temple constructed in 1905 (Shaka 1827). The shrine covers an area of 34'×14'. The idol is made of white marble and is three feet in height. *Champa Shashthi* and *Gokulashtami* are celebrated in the temple.

Thakurdwar Mandir.—The temple dedicated to Thakurdwar is located at *Jambhali naka* in the west of the town. The temple formerly got an yearly allowance of Rs. 49 from the Government. The shrine also contains an idol of Lord Ganapati and the temple is also known as Siddhi Vinayak temple.

Besides the temples mentioned above, there are temples dedicated to Maruti, Datta, Vitthal, Gavdevi, Ghantali, etc.

There are two Jain temples, one old and the other new, facing each other with a road in-between very close to the Thane Civil Hospital. The new temple took about twenty years to complete and the construction was started well before the first Great World War. The temple has two majestic elephants in marble at the entrance and has an inner chamber with a dome and a considerable space about the inner chamber. The entire space on the walls enclosing the inner chamber depicts in pictorial forms the various episodes in the life of Jain Tirthankaras in colour which gives an exquisite appearance to the temple. The temple is visited not only by the followers of the Jain sect but by a number of people belonging to other communities also.

Mosque and dargah : Of the mosques, the most famous is the Jama mosque. It is located in the *Mohagir Gwaftar*. It is a large building of an unknown date. It was repaired during the seventies of the last century by the widow of Jusab Menun at a cost of Rs. 10,000. It formerly enjoyed an allowance of Rs. 20 from the Government.

Just by the side of Lake is a *dargah* in honour of one Nuribaba who is said to have taken *samadhi* on December 10, 1923. He was equally revered by the Hindus and the Musalmans. The management of the *dargah* vests in a trust known as the Nuribaba Dargah Trust with five members. The *dargah* gets an income of about Rs. 800 per month and the entire amount is spent on the festivals and the upkeep of the *dargah*. A number of devotees throng the *dargah* daily to pay their respects to Shri Nuribaba. The number swells on Thursdays. An annual *urus* is held at the *dargah* on 10th of December when about seven to eight thousand people assemble. Many devotees fulfil their vows then.

In addition to these there is one Parsee fire temple and a synagogue.

Besides the forts and the places of worship mentioned above, there are four reservoirs in the town. These reservoirs or ponds are almost

the only remains of Thane before the Portuguese possession of the town. The four ponds are the Massunda, the Devala, the Gosala and the Harquala. Of these, the largest and the most important is the Massunda lake. The municipality has laid a fine garden by the side of the road adjoining the Massunda lake, half of which was reclaimed by the Municipality. Other places of note in the town are Central Maidan, Dadaji Konddev Maidan, the swimming tank and Gadkari Rangayatan recently constructed by the town municipality, the Arya Kreedha Mandal, the Marathi Grantha Sangrahalaya, the old court buildings, the police lines, the old *Vyayamshala*, the *sat rahati vihir*, the town hall, etc. All the sides of the lake have been covered with walls with seats where people in the town take an evening stroll. The statue of *Chhatrapati* Shivaji Maharaj has been erected on one side and a swimming pool in the west. A decorative fountain has been erected in the centre of the lake.

Six copper-plates fastened together by a ring in two parcels of three each, were found in 1787 while digging foundations in Thane fort. They record a grant by the tenth Shilahara chief Arikeshari. The names of the nine earlier chiefs are given and Arikesarin is described as by direction of his father even in childhood going with his army to Someshvar (Somnath Patan ?) and offering the whole earth before the god. The grant is of the village of Chavinar (?) and the district of Tokabala Pallika (?) to the illustrious Tikkapaiya, son of the astronomer the illustrious Chhintapaiya, inhabitant of Shristhanak. Arikeshari is described as having made the gift after bathing "in the opposite sea" on the full moon of *Kartik* (October-November), *Shaka* 939 (A. D. 1017) *Pingala Samvatsar*, when there was a lunar eclipse. Arikeshari is described as governing 1,400 Konkan villages, the chief of which was Puri. The towns of Hamyaman (probably Sanjan) and Shristhanak (Thana), are also mentioned. Arikesarin's ministers were the illustrious Vasapaiya and the illustrious Vedapaiya. The inscription was written by Jouba, nephew of the great bard Nagalaiya who lived in the royal palace. It was engraved on plates of copper by Vedapaiya's son Mandharpaiya.

About 1830 two other copper-plates were found while digging a grave in Thana and sent by Mr. Baillie to the Honourable Mr. Elphinstone. They are dated A. D. 1272 and 1290 and record grants by Konkan viceroys of the ninth Devgiri Yadav Ramchandradev, better known as Ramdev (1271-1308), whom Ala-ud-din Khilji defeated. The 1272 grant is by one Achyut Nayak, "the powerful western prince", to propitiate divine favour "on the illustrious" Ramchandradev. The date is Sunday the fifth of the bright half of *Ashvin* (September-October), *Shaka* 1194 (A. D. 1272), *Angira Samvatsar*. The village granted is Vavla in the Konkan in the

district of Ghatashasthi (Salsette). The grantees are thirty-two Brahmans, who are to employ themselves constantly invoking blessings on Ramchandradev. The 1290 grant was by the illustrious Krishnadev, governing the whole province of the Konkan under the orders of the illustrious Ram (Ramchandradev). The object of the grant is the prolongation of Ram's life, his preservation in good health, and the increase of his wealth. The village granted is Anjor in the district of Khajana Warrari (?) and the grantees are forty Brahmans. The grant bears date Tuesday the fifteenth of the bright half of *Vaishakh* (April-May), *Shake* 1218 (A. D. 1290), *Virodhi Samvatsar*.

Places of Tourist Interest : (1) *Stadium*: A multipurpose Stadium named after Dadoji Konddev, mentor of Chhatrapati Shivaji Maharaj, has been constructed around the ground by the side of Creek road. The Stadium is oval shaped and the longer dimension of the ground is 560'-0" while the shorter dimension is 460'-0". The Stadium can accommodate nearly 40,000 spectators when full. The Stadium consists of a club house and the general stands. In addition to Cricket, Indian games such as Kabbadi, Khokho etc., and foreign games such as Hockey, Football, Volley ball and various athletic events can also be staged on the ground of the Stadium. The club house is a two-storeyed building with sitting tiers in front of every storey. There is a commentator's box provided on the first floor. The stands have sitting tiers in front, with continue foyer at rear at mid level.

The entire Stadium has been equipped with flood lighting system. The system consists of twelve steel towers rising from the roof of the Stadium and each tower is filled with 60 halogen lamps each of 1000 W. capacity.

The entire Stadium complex is of the order of nearly Rs. 2.90 crores.

(2) *Gadkari Rangayatan*: The Thane Municipal Council has constructed an auditorium in the year 1978, named after well-known Marathi play-writer, the late Shri Ram Ganesh Gadkari. The auditorium is situated inside the lovely Masunda tank. The auditorium is a solid reinforced cement concrete structure resting over the R.C.C. files drain inside the bed of tank. The auditorium has been designed with foyers at different levels on either side of main hall. The auditorium is fully air-conditioned with central air-conditioning system. The auditorium has a wide wooden stage of 48'-0" length and 36'-0" width with a procession curtain piece of art depicting Goddess Saraswati riding over the peacock. The main auditorium has been provided with false ceiling in different shapes of plaster of paris.

There are two aluminium murals fixed on both sides of main auditorium, depicting the evolution of Indian instrumental music and dancing system from ancient times. The open space on the side of the tank has been landscaped by means of ever green lawns.

The total cost of the auditorium amounted to Rs. 82 lakhs.

(3) *Swimming Pool*: The Thane Municipal Council has constructed a Swimming Pool of semi-Olympic size in the year 1973-74 by reclaiming part of Masunda tank.

The Swimming Pool is an L shaped structure having two dimensions of 70'-0" and 85'-0" and uniform width of nearly 30'-0". The total storage of water is over two lakh gallons. The Pool has various depths of water starting from 3'-0" useful for the beginners to a maximum of 15'-0", immediately below the top diving board. The diving board fixed by the side of the Pool is a concrete structure and there are wooden diving boards fixed at various levels. The top platform is a concrete cantilever nearly 10 metres above the pavement level. The entire Swimming Pool is paved with chequered tiles.

The Swimming Pool was constructed at a cost of nearly Rs. 10 lakhs.

TILASE

Tilase is a small village in Wada tahsil covering an area of 177.252 hectares with population of 265 souls, as per the Census of 1971. Wells and river form the main sources of water-supply to the village populace. Facilities for primary education are available in the village. Rice is the staple food of villagers.

The village is settled on an island in the Vaitarna river and lies about seven kilometres to the east of Vada, to which it has been connected by a *kutchra* road. The village has a shrine with a natural *ling* and *ling case* or *shalunkha*. The temple was burnt in 1850 but the large foundations still remain. Round about the temple there are several very deep natural hollows in the river-bed filled with water. Two of them are called *Ram kund* and *Laxman kund*, respectively. To the north-east of the temple there is another very deep pool, full of large fish which are carefully preserved.

In January-February, on the great night of *Maha Shivaratri*, an annual fair is held in the temple which is attended by about 3,000 persons. Most of the pilgrims take a dip in the sacred pools. A few stalls are also set up during the fair. In old days the temple enjoyed two cash allowances of Rs. 15 and Rs. 4 annually, respectively, and a rent-free land admeasuring about seven hectares.

TIS

Tis is a small village in Kalyan tahsil covering an area of 176.443 hectares and with a population of 2,815 souls, as per the Census of 1971. Facilities for primary education are available in the village. Wells form the main source of water-supply. The village is served by both

katcha and *pucca* roads and is located at a distance of two kilometres from Kalyan. The village is famous for the temple dedicated to Jari-Mari, also known as Tisaidevi, in whose honour an annual fair is held on *Chaitra Shuddha* 15, i.e., March-April, when about 10,000 to 11,000 people assemble. The entire village dons a festive mood during that period when a number of stalls selling sweetmeat etc. are set up.

TITVALA

Located in 19°15' north latitude and 73°10' east longitude, the village of Titvala covers an area of 507·881 hectares with a population of 1,485 souls, as per the Census of 1971. It is a railway station on the Bombay-Kasara route of the Central Railway. Though the railway station is known as Titvala from the importance of the place, the railway station is actually located in the village of Mande, Titvala being a kilometre and a half to the north-east. The Kalu and the Bhatsa meet near the village of Mande upto which point or a little further they were navigable at the beginning of this century. The village has been supplied with electricity, and wells, river and tank form the main sources of water-supply. Educational facilities to the village populace are provided by a primary school conducted by the Zilla Parishad and a secondary school conducted by a private institution. For medical facilities the village population has to depend upon a dispensary and a health centre in the nearby village of Mande. The village has *kutchra* roads and is connected with Kalyan by Maharashtra State Road Transport Corporation buses. Rice is the staple food of the village population. The retail trade in rice at Titvala has assumed magnitude, it being nearer to the statutory rationed area like Bombay. The village is famous for the temple dedicated to Ganapati, revered and worshipped by the thousands of devotees and known as Shri Siddhi Vinayak Mahaganapati. A good road from Titvala station about a kilometre and a half leads to the temple. Buses, *tongas* and auto-rikshaws ply on the road.

In 1675 Fryer, in his journey to Junnar, notices it, under the name Intwally, as a town standing in large grove of mangoes on the bank of a deep creek, which, though fordable in the fair season, was a torrent in the rains. On reaching Intwally, Fryer shaded himself under a mosque, the only structure standing in the town, it suffering from the same fate with Gullean (Kalyan), and then reeking in its ashes, the Moghal's army laying waste all in their road, both villages fodder and corn and for their cattle they drive them along with them, and take them, their wives and children for slaves; so that no one escapes except those that fly fastest, or hide themselves in the woods which they also set on fire, to leave them destitute of those recesses.

A yearly Muhammedan fair was held at both the nearby villages, namely, Titvala and Mande.

As per the local tradition the place was considered to be forming a part of Dandakaranya inhabited by aboriginals mainly Katkaris. The hermitage of the sage Kanva was located at the place and it was here that Shakuntala was staying with the sage Kanva. When Dushyant abandoned his fiancée upon the curse (*shap*) given to him by the irascible sage Durvasa, Kanva directed his adopted daughter to establish a shrine in honour of Siddhi Vinayak who would bestow upon her his blessings and will unite her with Dushyant. The deity is said to have been established then. The original temple was said to have been buried under the debris in the tank. When during the regime of the Peshva Madhavrao I acute scarcity of water was felt in the town, the de-silting of the tank was undertaken. During those operations the temple was discovered to have been buried under the debris. The Peshva therefore undertook the renovation of the temple and the stone shrine was constructed then. As the shrine was a very small one, the wooden *sabhamandap* was constructed in front of the temple. Since this temple was also in a dilapidated condition, the construction of the temple anew commenced in 1965-66. The new temple has been constructed at a cost of about rupees two lakhs. The *sabhamandap* or an audience hall of the new temple admeasures 90'×45'. There are recesses in the pinnacle in which are placed the images of *ashita vinayakas*. There are galleries overlaying the main hall. The raised platform with a height of 3½ feet is made of stone and has marble flooring, over which could be seen a *prabhaval*. Rubies have been embedded in the eyes and the navel recently. On the right of the main entrance door is a shrine containing a *ling*, much revered. In front of the temple is a lamp-post.

The temple has a spacious accommodation outside where devotees and visitors could relax. Electricity and drinking water are also provided.

The deity of late is revered by thousands and on *vadya* 4 of every month the congregation numbers over two thousand. On the day of *Ganesh Chaturthi*, i.e. *Bhadrapad shuddha 4* and *Magha shuddha 4* which is celebrated as *Ganesh Jayanti* the congregation goes well over few thousands.

The temple has an *inam* land of 3-5 acres donated by the Peshvas. Additional land admeasuring twelve acres has been donated to the temple by the Joshis, the hereditary priests of the deity.

TUNGAR HILL

Tungar hill, in Vasai, about 48 kilometres north of Bombay and 853-440 metres (2,800 feet) high lies sixteen kilometres from the sea,

north-east of the Manikpur or Vasai Road station on the Western Railway. There are six paths which lead up the hill but the only regular road made by Mr. Hope on a gradient better than the Matheran ascent, is about fifteen kilometres (nine and a half miles) from the Vasai Road station, about six and a half on the level and about eight and a half on the way up. It takes an hour and a half to ride and three hours for a palanquin. The road passes between the villages of Gokivra and Satavali, with a shrine of Mahadev, a pond and the remains of an old Portuguese stockade in the former village. On the crest of a hillock, at the base of the hill, are the ruins of a Portuguese tower which was probably built as a defence against the attacks of the Jawhar Chief and his Kolis, who were very formidable to the Portuguese "leaping like monkeys from tree to tree".

Like most Konkan hills Tungar is trap, capped with a layer of iron clay or laterite from 60-960 to 91-440 metres thick (two hundred to three hundred feet thick). The north and the east sides are steep and clothed with magnificent forests. To the south and the west the slopes are gentler, and there are several spurs and out-lying hills, the whole except certain bare grassy slopes being covered with forest. The top plateau, where a bauxite mine is now worked, is in parts open and stony, and elsewhere covered closely with stunted trees. The foot of the hill is washed by the Vaitarna to the north and the Vasai creek to the south. From Satavali a fair-weather road begins to rise, passing through the Varli hamlet of Dhondvira to the temple of Tungareshvar, about eight kilometres from the foot of the hill. "The temple is a group of four square buildings, standing in a little valley almost surrounded by hills. They are said to be of great age and were re-built about a hundred and thirty years ago by Shankraji Keshav, the celebrated Maratha *Sarsubhedar* of Vasai. Of the four temples, the largest on a two feet (0.609 metre) high plinth is about ten feet (3.048 metres) square and is surrounded by a six feet (1.828 metres) platform." The principal shrine, that of Tungareshvar Mahadev, was renovated in 1945 by the addition of a spacious terraced *sabhamandap* supported on fourteen concrete columns, and two small rooms on either side of the original shrine. The entrance door to the vestibule is flanked by two niches holding images of four-armed Vishnu to the left and Ganapati to the right. The vestibule which is on a lower level than the *mandap* and descended by three steps contains the *ling* symbol of Tungareshvar coiled round and shaded by a brass cobra. Beyond the *ling* is a well-carved image of Parvati. The domed roof of the shrine ends in a small spire. The sacred bull with a pair of Dattatraya's foot-prints which was originally housed in a four-arched canopy is now fixed in the *mandap*. Behind the shrine is a small room with an image of Kalbhairav or cobra-holding Krishna and in front another with

an image of Hanuman. Not far away to the left of the temple shaded by rich mango, *apta* and other trees is a shrine of Parvati. Behind this shrine is a perennial spring for which a *kund* has been constructed. A number of stones with sun, moon and human figures carved on them and found lying in a stream-bed near the chief temple, are mostly arranged to the left of Parvati's shrine. Close to the left of the principal shrine is a well supplying ample water with *pujari* quarters behind and a *dharmashala* in front. A few huts have also sprung up. The temple is managed by a trust. A fair attended by about 10,000 devotees is held on the *Mahashivratra* day. In the neighbourhood of the temple a plot of ground about 4·8 square kilometres (three miles) was granted to the shrine by the *Peshva* and continues to the present day. In a large part of this area teak plantation has been undertaken on a systematic basis.

The top of Tungar, which is about 4·8 kilometres (three miles) long, consists of two parts, a plateau and a ridge. The plateau lies to the north and slopes south and west of Vaitarna point which is the highest spot on the hill. The ridge has little flat ground, but here and there it offers lovely sites, and is useful extension for walks and rides. At Kaman point about half way along the ridge, a commanding eminence overlooks the Bassein river, while Bellevue and Panorama points give five views of Kamandurg, Matheran and the Sahyadri hills. The hill-top was surveyed in 1869, fifty-three house-sites were marked off, and about 20·921 kilometres (thirteen miles) of foot and bridle paths were laid out and cleared on the summit and in the woods below with the intention of developing it into a hill-station.

As the hill-top is only sixteen kilometres (ten miles) from the sea and is open to the breeze, the heat is never very great. The rain-fall is about the same as in Bombay. The hill soon cools and the nights are unusually cold. The air appears to derive a special freshness and lightness on account of the nearness of the sea. The sea-breeze sets in at about the same time as at Bombay. There is less land wind than at Matheran, and there is much of the cool north wind, drawing round to the north-west as the hot season approaches, which is common in south Gujarat and down the north Konkan. Owing to the light rain-fall there is little damp after the monsoon, and the hill is free from fever and other forms of malarial sickness.

Tungar possesses the peculiar advantages as a sanatorium for poor families who cannot avail the facilities of the expensive accommodation of Matheran. Its comparatively light rain-fall and its openness to the sea would make it an excellent place of resort in case of sickness. Though it is difficult to say in what classes of cases Tungar climate is likely to prove most efficacious, it may generally be said that cases of fever of general debility attendant on long residence in the plains

and all ailments in which there is no organic disease may be expected to derive benefit from a sojourn on the hill.

The supply of water is fair including a made reservoir known as Parashuram *kund* at the Vaitarna point, and springs on the slopes of the hill. Of the springs, Gidhapani or the Vultures' spring, about 91-440 metres (300 feet) below the top of the hill is reached by a fair path. The water is good and the yield large and unfailing. Pardhi spring also, about 91-440 metres (300 feet) below the summit and reached by a fair path, supplies water throughout the year. A little to the north of the Pardhi spring, about 152-400 metres (500 feet) below the summit, is the Nali spring. It is perennial and is reached by a good path. Bhat-khindi spring which is about 121-920 metres (400 feet) from the top gives good supply of water during the cool months but runs dry in April. Ketki spring, towards the south end and far down the western slope, yields a good supply of water throughout the year. Not far from the Vaitarna point is the Parashuram *kund*, a rock-cut reservoir, thirty-six feet (10-972 metres) by ten (3-048 metres) and five feet (1-524 metres) deep. Near it are three other reservoirs, each twenty feet (6-096 metres) by twelve (3-657 metres). All these are rather difficult to reach from the top but are not necessary for its water-supply.

In 1865 the suitability of the hill attracted the attention of Mr. T. C. Hope, then an Assistant Collector. He thoroughly explored the hill and brought it to the notice of Sir Bartle Frere, then the Governor of Bombay, who ordered it to be examined. Various reports were written, but little progress was made until 1867. In 1868, Mr Hope built a large thatched house for himself, and his example was followed by one Mr. Ausell of Bassein. A Portuguese also built a hotel. In 1869 about forty applications for the newly-marked sites were received, some speculative and some *bonafide*. Great delay occurred in responding to these applications. Meanwhile the fair season passed, other difficulties followed, Bombay entered on a period of depression, houses at Matheran became cheap and the attempt to convert Tungar into a health resort fell through. Mr. Hope continued to visit the hill and in 1872 he built a upper storeyed bungalow at a cost of Rs. 5,000 (£ 500). Various officers visited the hill during this time and a few people also came annually to the hotel. But depression of trade prevented enterprise. Mr. Ausell's thatched cottage was burnt and later Mr. Hope's bungalow was purchased by the Government for the use of forest officers. The remains of the houses built on the top can still be seen.

In 1880, a committee was appointed to report on the capabilities of the hill as a sanatorium. Their report was not encouraging and Government decided that for the present nothing could be done with Tungar. Recently the Government of Maharashtra have also surveyed

the hill but no steps have so far been taken to develop Tungar into a hill-station.

On the Vaitarna point, on a knoll to the north of the pond are some Jain cells supposed to have been excavated about the middle of the thirteenth century (1234). They do not appear to have been finished and fragments and splinters lie about. They are now filled with water and are known as Pandava springs. On the top of the hill was a clothed image of a Jain saint with a Rajput like head-dress. It was broken to pieces by the Roman Catholic hotel-keeper. Lately some workers removed it to Pilar thinking it to be the image of Hanuman. Unlike Matheran where the hill-tribes are Dangars, Thakurs and Katkaris, the Tungar inhabitants are Kolis and Varlis. There is little difference in the plants of the two hills. But Tungar was formerly much richer in wild animals than Matheran, the tiger, bear, *sambhar* and wild hog being not uncommon, and the bison being occasionally found.

ULHASNAGAR

Ulhasnagar is a municipal town and the head-quarters of the tahsil bearing the same name. It is a railway station on the Bombay-Pune route of the Central Railway. A phenomenal growth is witnessed in respect of this township and it can mainly be attributed to the rehabilitation of refugees from Pakistan, after partition of India. The population of the town which was 80,861 as per the Census of 1951, rose to 1,07,760 as per the Census of 1961 and more than doubled to 1,68,462 as per the Census of 1971. Included in the functional category of industry as per the Census of 1971, the town covers an area of 13.34 square kilometres and is divided into 285 blocks. Eight banks are located in the town. It is a centre for the production of rayon silk, dyes and transistor sets.

The total length of roads in the town admeasures 100.80 kilometres, of which a length of 96.80 kilometres is of a *pucca* variety. The town is served by open-surface drainage, night-soil being disposed of by septic tank latrines. The town gets a protected water-supply through a service reservoir with a capacity of 2,02,50,000 litres. Fire-fighting service is also available in the town. The town has been supplied with electricity and there were in the town, as per the Census of 1971, 19,066 domestic connections, 374 industrial connections, 4,108 road-lighting points.

Thirteen hospitals with a total bed-strength of 146 beds, 129 dispensaries and a family planning centre besides a number of private medical practitioners cater to the curative and preventive health needs of the town population. Educational facilities are provided by twenty-

one primary schools, thirteen high schools, six type-writing institutions and three other institutions. Facilities of collegiate education are also available in the town. Entertainment facilities are provided by one stadium and six cinema theatres besides five auditorium-cum-drama halls. Nine public libraries are located in the town.

VADA

Vada, the head-quarters of the taluka bearing same name, covers an area of 10.98 square kilometres. It has, as per the Census of 1971, a population of 8,168 souls, of which scheduled castes number 289 and the scheduled tribes 1,919. It is a non-municipal town located at an altitude of fifty-five metres. It receives an average annual rain-fall of 2,534.6 millimetres, the maximum and minimum temperatures being 34.0°C and 25.0°C, respectively. It is located at a distance of fifty-eight kilometres from Thane, the district head-quarters, and ninety-three kilometres from Bombay, the State head-quarters. Kalyan, the nearest railway station to the town, is located at a distance of fifty-four kilometres. The Maharashtra State Road Transport Corporation buses ply regularly between Vada and Thane, the district head-quarters and between Bombay and Vada. It is also connected with various other routes. The total length of roads in the town admeasures 3.88 kilometres, of which only a length to the extent of 0.44 kilometre is asphalted. The town has open-surface drainage and night-soil is cleared by head-loads and hand-carts. The town gets protected water-supply to the extent of 1,70,363 litres through river infiltration gallery. The medical facilities to the town population are provided by a dispensary and a family planning centre. The dispensary has thirteen beds. Four primary schools, three middle schools and two high schools cater to the educational needs of the town populace. The town has one cinema theatre, two auditoria and a public library. Banking and credit facilities are provided by the branches of two banks located in the town and one agricultural credit society and three non-agricultural credit societies. In the town are located the office of the *Tahsildar* and the Block Development Officer. The lodging facilities to tourists as also to the Government officials on duty are provided by the Government rest-house located in the town. The town is said to have derived its name from a *Vada* or pleasure-house said to have been constructed in the middle of the pond by the Jawhar Chiefs who had their head-quarters at Vada and the remains of which are seen even now.

History : As per the reference in the *Mahikavati Bakhar* the town had no separate identity and it formed part of the village of Uttan. When Uttan Prant was granted as *inam* to Balaji Shinde it contained five villages, viz., Uttan, Gorai, Manori, Savri and Vade. Though

Uttan was the chief town of his *inam*, Balaji Shinde was camping at Vada with three thousand troops. He constructed at Vade many tanks, of which only one remains in a dilapidated condition. Many tanks have been converted into agricultural lands known as *tula* derived from *talav* meaning tank. Vade was the place of change of climate of Jawhar Chiefs.

Objects : To the north-east of the town there is a large pond, once a fine piece of water but now much silted. In the middle of the pond are some old piles said to be the remains of a pleasure-house built by the Jawhar Chiefs who had their head-quarters in Vada. As per the local tradition, this mansion is said to have been constructed during the regime of Bimbaraja and hence the town has been named as Vada, i.e., mansion. The only other traces of its former greatness are a ruined Hindu temple of Khandeshvar, built of stones without mortar, a few dismantled tombs, a ruined mosque, and a ruined temple of Hanuman. The ruins of the Hindu temple are sixty feet by twenty-seven, and the whole is formed of huge blocks of stones with the usual joints for iron or wooden clamps. The shrine still stands with an altar inside. Over the door is a small naked sitting figure, with the hands crossed on the lap, and what looks a sacred thread on the left shoulder. The figure is not worshipped. Among the ruins is a pillar capital with a well cut cobra, with expanded hood.

The temple has now been renovated. In the Museum of the Bombay Branch of the Asiatic Society, there is an inscribed stone said to have come from Vada. It is 4'-6" long by 1'-9" broad and 3" thick. The inscription is in eleven lines written in Devanagari letters, which appear from their form to be of about the fifth or sixth century A.D. In the first line Pandit Bhagvanlal reads the name of the king "Maurya Suketuvarma" and in the second "Kotishvar was established by Sinhadata, son of Kumaradata".

VAJIRGAD FORT

Vajirgad fort, also known as Vajragad, lies about five kilometres west of Manikpur or Bassein Road railway station and about a kilometre and a half south of the sacred Nirmal. It is an even-crested hill rising about 200 feet (60-960 metres) from the plain. Half-way up the west slope are many basalt boulders which appear to be the remains of a rough mortarless wall of undressed stone. The work does not appear to be of great age. At the northern end of the hill-top there is a broken gate-way of stone and cement, Musalman or Portuguese, it is difficult to conjecture. It is probably Portuguese. Along the east crest there is a rough retaining wall and at the southern end are the remains of several buildings which have now practically disappeared. One of

these holds an idol of Hanuman. Close-by is a handsome rock-cut pool. Though not of great height Vajirgad commands a wide view to the west, the wooded hill, the rich garden lands of Nirmal and the sea beyond ; to the south a long stretch of palm-groves ending in Bassein ; to the east the sharp point of Kamandurg and the level top of Tungar and to the north the rich gardens of Sopara and the rugged outlines of Jivdhan. Laborious search might well bring old remains to light but the most notable ruins are probably Portuguese. The fort is in total ruins now.

VAJRABAI OR VAJRESHVARI

Vajrabai or Vajreshvari, " the Lady of the Thunderbolt ", near the bed of the Tansa river, lying about nineteen kilometres north of Bhivandi and originally known as Vadavali, is famous for a temple of the goddess of the same name and hot-water springs in its neighbourhood. The people of the place know little about Vajrabai and her chronicle or the *Mahatmya* which is kept at the village of Gunj, about 9.6 kilometres to the north. The *Vajreshvari Mahatmya* narrates an interesting legend about the name and the incarnation of the goddess. According to it, Kalikal, a brave *rakshasa* or demon, fired with the ambition of conquering and dominating the three worlds undertook severe penance for several years to please Shankar. When the Lord appeared before him, the demon requested to be blessed with powerful army, such prowess and weapons as would conquer the gods and the *rishis*, and capacity to swallow the missiles which might be let loose upon him by the gods. Endowed with these boons, Kalikal began terrorising the gods and the *rishis*, who in their panic sought refuge in a remote jungle where they started a *mahayajnya* in praise of Ishvari, the goddess. Pleased at their devotion, the goddess emerged from the *yajnya* and assured them of her support in the impending war. A bloody war, marked by terrific carnage, ensued between the gods and the demons in the course of which Indra, the war-god, tried all his weapons except the *Vajra* or Thunderbolt. When Kalikal swallowed them all Indra hurled at him the last weapon in his armoury, the *Vajra*. The demon, instead of swallowing it, broke it to pieces out of which emerged the goddess who killed Kalikal and who, therefore, came to be known as Vajreshvari.

Until the rise of the *Peshvas* the temple was very small. It is told that Chimaji Appa on his campaign against the Portuguese of Bassein encamped at Vajreshvari and vowed to build the temple with a fortified wall if success attended his campaign. In fulfilment of the vow the present temple was constructed when the well-known Shankaraji Keshav was the *Peshva's Sarsubhedar* at Bassein. The temple is a handsome

building well placed at the top of a flight of over fifty steps on a spur of the Gumtara range. Khandarav Gaikwad of Baroda added a large timber entrance hall circumvented by a *nagarkhana*, embellished among other things by a fine picture gallery. He endowed it with an yearly grant of Rs. 450 which seems to have been discontinued later. The flight of steps together with the *deep-stambh* or the lamp-pillar in front of the temple was built by one Nanasaheb Chandvadkar of Nasik. The actual temple could be divided into three parts: a spacious *sabhamandap* capable of accommodating nearly three hundred people, an outer vestibule or *gabhara* containing among other deities the images of Ganapati, Kalbhairav and Vishnu, and the inner vestibule holding the image of Vajreshvari. The goddess is a rude stone female figure wielding a short Roman-looking sword in her right hand and flanked by images of Renuka to the left and Kalikamata and Vyaghreshvar to the right. There is also an image of Bhargavaram. Within the compound are small shrines dedicated to Ganapati, Dattatraya and certain other deities. Six *inam* villages, three in Bassein and three in Bhivandi, were granted by the *Peshvas* for the maintenance of the temple. These were continued by the British adding cash annual grant of Rs. 196. A large annual fair attended by nearly 15,000 persons of all castes is held here in *Chaitra* (April) at which large quantities of sweetmeats, fruit, grain, cloth, fish, wood, cattle, utensils and ornaments are sold.

As mentioned already, Vajreshvari is famous for its hot-water springs which form one group in a line that appears here and there along about 6.4 kilometres of the river's course. Prominent among them converted into cisterns, and named as Agnikund, Suryakund, Chandrakund, Vayukund, Ramkund, Lakshmankund and Sitakund. The water nearly approaches the boiling point. Into most of the springs the people jump at once though there are a few in which they do not enter until they have bathed in the cooler springs. A dip in these waters is believed to cure skin and certain other diseases. At Akloli at a distance of about a kilometre and a half from Vajreshvari is a temple of Maheshvar Mahadev, in front of which also there are three hot-water springs. Here a health resort and a water-treatment centre have been opened. The water is tasteless, and the strong smell of rotten eggs which pervades the neighbourhood of the spring is due less to the water than to the bubbles of phosphorus gas which rises through them. According to tradition the hot water is the blood of the *rakshasas* which were slain by Vajrabai who became incarnate in the neighbourhood to clear it of demons and giants.

Vajreshvari was the scene of the Anglo-Maratha struggle. Ramchandra Ganesh, the great Maratha captain of North India fame, on his way with succours to Bassein which was besieged by General Goddard, was killed in the morning fog by a chance enemy shot while camping on

the Vajreshvari hill and attempting to capture Colonel Hartley alive. The incident occurred on the 12th December 1780 and on the same day Visaji Pant surrendered Bassein to the English.

VIWALWEDHE

Viwalwedhe is a small village in Dahanu tahsil covering an area of 1,079-702 hectares with a population of 609, as per the Census of 1971. The village is famous for the temple dedicated to Mahalakshmi where a very big fair is held in honour of the goddess from *Chaitra Shuddha* 10 to *Chaitra Vadya* 10 (March-April). Hence the village is many a time referred to as Mahalakshmi. Known to the Europeans as St. Valentine's Peak, it is situated on a conical funnel-shaped hill rising to the height of 469-392 metres. It is located about twenty-six kilometres to the north-east of Tarapur, about nineteen kilometres from the coast. The village has been supplied with electricity. Wells form the main source of water-supply. The village is connected with Dahanu Road railway station on the Western Railway which lies at a distance of about twenty-seven kilometres to the west of the village by an asphalted road three kilometres upto Charoti on the junction of the Bombay-Ahmedabad road and Jawhar-Dahanu road and thereafter by a concrete road of about twenty-four kilometres upto Dahanu Road railway station.

The temple dedicated to Mahalakshmi is a good stone and mortar structure standing at the foot of the hill which is very difficult to climb. So steep is the hill that no one can climb it except the ministrant or the *pujari*, the Varli head-man of the village, to whom the goddess gives strength and skill, as per the village superstition. On the full-moon night of *Chaitra* the *pujari* climbs to the top and plants a flag, the people watching from below and raising a shout when they catch sight of the flag. To any one but a member of the patel's family the ascent is believed to be fatal.

The fair held in honour of the goddess starts on *Chaitra Sud.* 10 and ends on *Chaitra Vad.* 10 (March-April). Two *homas* (sacrificial fires) are performed on *Chaitra Sud.* 15 in the south and north *homa* pits respectively, one on behalf of Dhivars (a caste name) and the other on behalf of Vanis (another caste). On this day forty to fifty thousand people are said to be attending, amongst whom Adivasis are prominent. Those who cannot attend at the time of this sacrificial offering attend on *Chaitra Vad.* 8 when a *navachandi homa* is performed. The *homa* starts on *Vad.* 8 and ends with *purpahuti* on *Vad.* 9 at an auspicious moment. At this time about ten to fifteen thousand people collect. *Chaitra Sud.* 15 to *Chaitra Vad.* 8 are considered to be the most important days of the fair and the gathering on these days is the largest.

Pilgrims from all over Maharashtra and Gujarat visit the fair. Varlis and Malhar Kolis attend the fair in large numbers to revere the goddess and also to purchase the provisions and other articles of household consumption required during the monsoon. Pilgrims use all the available means of transport such as rail, motor vehicle, bullock-carts, etc., to reach the place. Amongst the pilgrims are people of all religions.

Besides the annual fair, members of different scheduled tribes, viz., Varlis, Mahadeo Kolis, etc., numbering about forty to fifty thousand collect at the temple in the afternoon of *Bhadrapad Vad. 12* (locally called *Retiya Baras*) to take *darshan* of the goddess and dance on *tarpa* (a musical instrument) at night. They offer cucumber and other fruits to the deity on this day.

In the temple there are three idols, the biggest of which is that of Mahalakshmi, about four feet tall and three feet in width and made of black stone. On the right of Mahalakshmi and in the front is the image of Mahakali which is smaller, and to its right is the image of Gauri Saraswati which is the smallest. To the left of Mahalakshmi was installed a Ganapati idol of white marble stone, in 1963. The face of Mahalakshmi is made of silver. To the right of the Mahalakshmi temple on the north, at about fifty paces from it, there is a Mahadeo temple.

Two *karnafuls*, necklace, *daman*, *chandra*, a crown, etc., are the ornaments of the goddess. Most of these are donated by the devotees in fulfilment of their vows.

It is not customary to make an offering of food to the deity everyday. Offering of live goats is made to the deity on *Magha Sud. 12* and *Chaitra Vad. 12* when three live goats are taken before the goddess and after their formal offering to the deity, they are taken to the rear of the temple and killed. On *Chaitra Vad. 8* a goat is let loose after cutting its ear and a *kohala* is cut and offered in sacrifice to the deity, instead.

The deity is believed to be capable of fulfilling one's desires. Promises of offerings are, therefore, made to the deity in return for getting a child, employment or relief from physical pain. A promise to make an offering of an artificial limb is also made. Thus, if one has lost eye-sight in small-pox, artificial eyes are offered to the deity in return for getting back the sight. Promises to offer gold or silver ornaments to the deity, to distribute coconut kernel or sweets, to fill the lap of the deity, to weigh the deity against flowers, jaggery, etc., are also made on fulfilment of one's desires.

During the fair period of fifteen days about one lakh persons belonging to the different castes from among Hindus attend the fair. Persons belonging to other religions also attend the fair; however, they are allowed only upto the threshold of the temple entrance.

The pilgrims, after taking bath, pay their homage to the deity and usually offer coconut, flowers, sugar-candy, incense-sticks, *kumkum* and *ghee* for the *nandadeep*.

On *Chaitra Sud.* 14 an *aher* comprising *sari*, *choli*, and *vida* (betel-leaf and nut) is offered to the deity and *dakshina* to the Brahmin officiating at the *homa* fire by the ex-ruling family of the former princely State of Jawhar.

An ochre flag received from the ex-ruling family of Jawhar State is hoisted on the Muslya Dongar, the original seat of the goddess, at mid-night after the *homa* is performed on *Chaitra Sud.* 15.

During the fair about 400 to 500 stalls are opened at fair-site where articles of provisions such as dry fish, stationery, cutlery, utensils, etc., are sold. In addition 20-25 shops selling material required for worship are opened during the fair within the temple compound.

The important stalls are those of utensils which stock utensils worth Rs. 25,000 to Rs. 30,000. Some stalls keep utensils worth Rs. 10,000 to Rs. 12,000. The stalls selling *saris* generally have a stock of Rs. 20,000 to Rs. 25,000. Besides this, there are fifteen to twenty stalls selling salt and gum. Pilgrims of Malhar Koli and Varli tribes purchase their annual requirement of salt in the fair. An aggregate of about 4,500 to 5,000 bags of salt are sold. About ten to fifteen shops sell grocery and one or two stalls sell vegetables and oil-products. Sundry stalls of *bidi* and matches, aerated waters, jaggery, etc., are also opened in the fair.

The affairs of the temple are managed by a Board of Trustees appointed by the Government, with the Mamlatdar of Dahanu, as chairman.

WASHALE

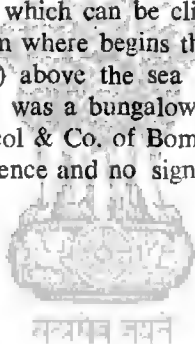
Washale is a small village in Mokhada taluka situated about eight kilometres south of Mokhada. On the north slope of a small hill near the village, there is a rock-cut temple called Vase. It is probably Jain. It was blocked up with earth for about a metre (three feet). The earth has since been partly removed. The inner space is about 3.657 metres (twelve feet) square by about 1.970 metres (six and a half feet) high. In the rock facing the door on either side of a niche are two images, each about 0.914 metre (three feet) high. They have large ears and have their arms held stiff down their sides. There is a porch roofed with stone-slabs supported on stone-pillars, squared and having the angles cut off in portions. About a metre (three feet) in front of the pillars is a small enclosure with walls of rock on either side and a doorway through two little parapet like walls about a metre (three feet) high.

WASHIND

Washind is a railway station on the Bombay-Kasara route of the Central Railway. It is a fairly large village in Shahapur taluka with a population of 4,177 souls, as per the Census of 1971. Located on the Agra road, eight kilometres south of Shahapur and about seventy-eight kilometres north-east of Bombay, the village covers an area of about 397 hectares (981 acres). Educational facilities to the village population are provided by a secondary school conducted by a private institution and primary schools conducted by the Zilla Parishad. A hospital, a dispensary and a family planning centre besides a few private medical practitioners cater to the health needs of populace. The village gets piped water-supply. River and wells form other sources of water-supply. The village has a post office. Rice is the staple food of the people. About three kilometres to the north-east of the village rise the towering peaks of Mahuli which can be climbed from near the railway station. It is the place from where begins the Thal Pass which is 23·469 metres (seventy-seven feet) above the sea level.

Near the railway station was a bungalow where a dyeing factory was established by Messrs. Nicol & Co. of Bombay in about 1872. Now the factory is no more in existence and no signs of the former construction remain.

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DIRECTORY OF VILLAGES AND TOWNS



EXPLANATIONS OF COLUMN HEADINGS, SYMBOLS AND ABBREVIATIONS USED

The names of towns and villages are broadly arranged in alphabetical order talukawise.

Column 1.—The names are given both in English and Deonagari. Abbreviations indicating Talukas

BWD.—Bhiwandi.	MRD.—Murbad.	VAD.—Vada.
DHN.—Dahanu.	PGR.—Palghar.	WSI.—Wasai.
JWR.—Jawhar.	SPR.—Shahapur.	THN.—Thane.
KLN.—Kalyan.	TLR.—Talasari.	
MKD.—Mokhada.	UNR.—Ulhasnagar.	

Column 2.—(a) Direction (b) Travelling distance of the village from the Taluka Headquarters. Abbreviations used showing direction from Taluka Headquarters.

E—East.	S—South.	NW—North West.
W—West.	NE—North East.	SW—South West.
N—North.	SE—South East.	HQ—Headquarters.

Column 3.—(a) Area* (b) Total population; (c) Number of households; (d) Total number of cultivators and agricultural labourers.

Column 4.—(a) Post office; (b) Its distance from the village.

Column 5.—(a) Railway Station; (b) Its distance from the village.

Column 6.—(a) Weekly Bazar; (b) Bazar day; (c) Distance of the Bazar place from the village.

Column 7.—(a) Nearest motor stand; (b) Its distance from the village.

Column 8.—Drinking water facilities available in the village.

br—brook.	rsr—reservoir.	pl—pipe line.
cl—canal.	t—tank.	spr—spring.
n—nalla.	W—big well.	str—stream.
o—scarcity of water.	r—river.	
p—pond.	w—small well.	

Column 9.—Miscellaneous information about school, panchayat, co-operative society, temple, math, mosque, dargah, chavadi, gymnasium, library, dispensary, church and inscription.

Sl—School.	Fr.—fair.	(mp)—multipurpose.
(h)—high.	pyt—panchayat.	(sp)—sale and purchase.
(m)—middle.	cs—co-operative society.	(wvg)—weaving.
(pr)—primary.	(c)—credit.	(i)—industrial.
(clg)—college.	(fmg)—farming.	(con)—consumers.
tr. clg—training college.	(mis)—miscellaneous.	mun—municipality.

Months according to Hindu Calendar:—

Ct.—Chaitra; Vsk.—Vaishakha; Jt.—Jeshtha; Asd.—Ashadha; Srn.—Shravana;
Bdp.—Bhadrapada; An.—Ashvina; Kt.—Kartika; Mrg.—Margashirsha; Ps.—Pausa;
Mg.—Magha; Phg.—Phalguna; Sud.—Shuddha (First fortnight of the month); Vad.—Vadya
(Second fortnight of the month).

tl—temple.	dh—dharmashala.	dp—dispensary.
m—math.	gym—gymnasium.	Cch—church.
mq—mosque.	ch—chavadi.	ins—inscription.
dg—dargah.	lib—library.	

N.B.—Figures for distance in columns (2), (4), (5), (6) and (7) stand for miles and furlongs.

* Area figures for towns (Urban area) are in Km².

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
BHIWANDI TALUKA			
Akloli; BWD. अकलोली	N 20-0	1176; 1476; 308; 301	Vajre-shwari; 0-6
Alkhivali; BWD. आलखिवली	N 7-0	1163; 285; 51; 139	Angaon; 3-0
Amane; BWD. आमणे	NE ..	1160; 1383; 236; 652	Padghe; 4-0
Ambadi; BWD. अंबाडी	N 12-0	982; 972; 169; 375	Dighashi; 2-0
Angaon; BWD. अन्गाव	N 5-0	961; 1920; 354; 581	Local; ..
Anhe; BWD. आन्हे	NE 13-0	396; 348; 61; 81	Padghe; 2-0
Anjur; BWD. अंजूर	S 8-0	4296; 4671; 745; 1322	Local; ..
Arjunali; BWD. अर्जुनली	NE 10-0	305; 348; 67; 63	Padghe; 0-4
Asnoli Tarf Dugad; BWD. असनोली तर्फ दुगाड	N ..	473; 475; 68; 178	.. 1-4
Asnoli Tarf Kunde; BWD. असनोली तर्फ कुंदे	NE ..	506; 292; 47; 156	.. ..
Awale; BWD. आवळे	N 9-0	1081; 935; 140; 247	Angaon; 4-0
Awalvale; BWD. आवळवले	NE ..	842; 447; 55; 153	Angaon; 7-0
Babgaon; BWD. बाबगाव	SE ..	613; 386; 70; 162	Padghe; 4-0
Base; BWD. बासे	NE 18-0	577; 359; 60; 164	Khambala; 2-0
Bhadane; BWD. भदाने	NE 16-0	1432; 1178; 200; 342	Padghe; 1-0
Bhadvad; BWD. भादवड	SE ..	423; 883; 212; 268	Bhiwandi; 3-0
Bhare; BWD. भरे	NE 11-0	541; 598; 100; 261	Angaon; ..
Bhawale; BWD. भवाळे	NE 9-0	427; 338; 61; 130	Lonad; 2-0
Bhinar; BWD. भिनार	NE 3-0	493; 942; 179; 221	Vadape; 2-0
Bhivali; BWD. भिवळी	NE 21-0	566; 468; 57; 153	Ganesh-puri; 1-0
Bhiwandi Urban area XV; निबंधी नागरी विभाग १५	HQ ..	4.12; 79,576; 13,952; 238	Local; ..
Bhokri; BWD. भोकरी	NE ..	997; 806; 116; 209	.. 5-0
Borivali Tarf Rahur; BWD. बोरीवली तर्फ राहूर	NE 10-0	429; 2252; 422; 363	Padghe; 0-4
Borivali Tarf Sonale; BWD. बोरीवली तर्फ सोनाळे	NE 6-0	462; 183; 33; 53	Padghe; 4-0
Chane; BWD. चाणे	NE 12-0	769; 443; 70; 222	Dighashi; 1-0
Chave; BWD. चावे	N ..	660; 822; 138; 282	.. 3-0
Chavindre; BWD. चाविंद्रे	N 2-0	757; 1002; 216; 280	Bhiwandi; 2-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Vasai 20-0 Road;	Vajreshwari; 0-6; ..	..	W;rv; pl.	Sl (pr); 2 cs; 2 tl; dh; ch; lib; dp.
Kalyan; 15-0	Angaon; 3-0; Fri.	.. 3-0	W.	Sl (pr).
Ambivali; 5-0	Padghe; 4-0; Sun.	Local; ..	W.	Sl (pr); cs; Hanuman Jayanti Ct. Sud. 15; 2 tl; ch.
Vasai Rd; 27-0	Local; .. Sun.	Local; ..	W.	4 tl; mq; dh.
Kalyan; 15-0	Local; .. Fri.	Local; ..	W.	Sl (pr,m,h); cs; 4 tl; m; dh; gym; ch.
Khadavali; 2-0	Padghe; 2-0; Sun.	.. ..	W.	Sl (pr); tl.
Mumbra; 1-½	Thane;	Local; ..	W.	4 Sl (pr,m); cs; Ramma- navmi Fr. Ct. Sud. 9; 6 tl; gym; ch; lib.
Washind; 9-0	Padghe; 0-4; Sun.	Padghe; 0-4	W.	Sl (pr); mq.
.. 1-0	Dabhad; 1-0; Tue.	Dabhad; 1-0	W.	Sl (pr); 2 tl.
..
Kalyan; 19-0	Dugad; .. Wed.	Local; ..	W.	Sl (pr); cs; Hanuman Jayanti Ct. Sud. 15; 3 tl; dp.
Kalyan; 19-0	Angaon; 7-0; Fri.	Nandithane; ..	W.	Sl (pr); tl.
Ambivali; 3-0	Bhiwandi;	Stage; ..	W.	Sl (pr); dp.
Thane; 38-0	Dabhad; 2-0; Tue.	.. ..	W.	Sl (pr); tl.
.. 4-0	Padghe; 1-0; Sun.	.. 1-0	W.	3 Sl (pr); 2 tl.
Kalyan; ..	.. ..	.. 4-0	W.	Sl (pr); tl; ch.
Kalyan; 17-0	Angaon; .. Fri.	Mahapoli; 2-0	W.	2 tl.
Kalyan; 4-0	.. ..	.. ..	W.	Sl (pr).
Kalyan; 10-0	Bhiwandi; 3-0; ..	Local; ..	W; pl.	Sl (pr); cs; Hanuman Jayanti Ct. Sud. 15; tl.
Vasai Rd; 13-0	Vajreshwari; 1-1; Tue.	.. 0-1	W.	Sl (pr); tl.
..
Khadavali; 3-0	.. 5-0; ..	.. 5-0	W.	Sl (pr); m; tl.
Khadavali; 3-0	Padghe; 0-4; Sun.	Local; ..	Pl.	2 Sl (pr,m); cs; 2 mq; dp; ch.
Khadavali; 7-0	Padghe; 7-0; Sun.	.. 0-4	W.	Sl (pr); tl.
Kalyan; 20-0	Ambadi; 2-0; Sun.	Dugad 1-4	W.	Sl (pr); tl.
Kalyan; 16-0	Angaon; 3-0; Fri.	Phata; ..	W.	4 Sl (pr); 6 tl.
Kalyan; 9-0	Bhiwandi; 2-0; Wed.	Local; ..	..	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Chimbipada; BWD. चिंबीपाडा	.. NW 8-0	1569; 345; 69; 189	.. 2-0
Chinchavali Tarf Kunde; BWD. चिंचवली तर्फ कुंदे	NE 7-0	743; 593; 46; 300	.. 1-0
Chinchavali Tarf Sonale; BWD. चिंचवली तर्फ सोनाळे	.. NE ..	303; 585; 102; 218	.. ..
Dabhad; BWD. दाभाड	.. NE 12-0	417; 928; 138; 273	Khambala; 1-0
Dapode; BWD. दापोडे	.. W 8-0	515; 769; 117; 203	Kalher; 3-0
Dahyale; BWD. दाह्याळे	.. NW ..	104; 29; 7; 13	.. ..
Dalonde; BWD. दालोंडे	.. N 13-0	428; 388; 56; 162	Dighashi; 1-0
Delepada; BWD. देळेपाडा	.. NE 9-0	905; 378; 63; 95	Padghe; 0-4
Depodi; BWD. देपोडी	.. N 10-0	2330; 396; 64; 172	Angaon; 3-0
Devali; BWD. देवली	.. NE 17-0	509; 222; 38; 60	Padghe; 1-0
Devarung; BWD. देवरुंग	.. E ..	375; 926; 160; 478	Padghe; 4-0
Devchole; BWD. देवचोळे	.. NE 22-0	469; 105; 17; 37	Dighashi; 8-0
Dhamne; BWD. धामणे	.. NW 12-0	609; 274; 50; 154	.. 10-0
Dharmangaon; BWD. धामणगाव	.. NE 5-0	1002; 1239; 268; 171	Vadale; 0-2
Dighashi; BWD. दिघाशी	.. NE 14-0	1803; 1543; 249; 639	Local; ..
Dive; BWD. दिवे	.. SW ..	839; 1092; 179; 433	Kanher; 2-0
Dohole; BWD. दोहोळे	.. NE 13-0	814; 589; 99; 163	Padghe; 1-0
Dudhani; BWD. दुधणी	.. NE 5-0	341; 220; 36; 69	Dighashi; 5-0
Dugad; BWD. दुगाड	.. N 11-0	1127; 1015; 183; 440	Angaon; 6-0
Dunge; BWD. हुंगे	.. W 4-0	493; 1083; 178; 264	Bhiwandi; 3-0
Eksal; BWD. एकसाल	.. NE ..	1020; 403; 60; 195	Dighashi; 5-0
Elkunde; BWD. एलकुंदे	.. E ..	502; 234; 34; 132	.. 5-0
Fene; BWD. फेणे	.. S 2-6	168; 80; 17; 20	Kamat-ghar; 1-0
Firangapada; BWD. फिरंगपाडा	.. W ..	141; 211; 37; 102	.. ..
Gane; BWD. गाने	.. W ..	850; 202; 38; 101	.. ..
Ganeshpuri; BWD. गणेशपुरी	.. NW 22-0	710; 1760; 322; 374	Local; ..
Gauripada; BWD. गौरीपाडा	.. S 2-0	281; 343; 59; ..	Bhiwandi; 1-0
Ghadane; BWD. घाढणे	.. NE 17-0	528; 184; 29; 92	Dighashi; 2-0
Ghotgaon; BWD. घोटगाव	.. N 12-0	2559; 1392; 205; 556	Vajresh-wari; 2-0
Ghotavade; BWD. चोतवडे	.. NE ..	310; 128; 22; 38	Khambala; 5-0
Gondade; BWD. गोंदाडे	.. NE ..	259; 125; 25; 57	Khambala; 1-4
Gondravali; BWD. गोंदवली	.. NE 13-0	136; 74; 13; 34	Dighashi; 1-0
Gorad; BWD. गोराड	.. NE ..	473; 171; 24; 54	Vadavli; 0-4
Gorsai; BWD. गोरसाई	.. N 3-0	576; 905; 129; 167	Vadpa; 4-0
Gove; BWD. गोवे	.. SE 5-0	538; 1134; 111; 144	.. 1-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Khadavali; 3-0	Padghe; .. ..	.. ..	..	Sl (pr); tl.
.. ..	Padghe; 7-0; ..	.. ..	Pl.	Sl (pr); Hanuman Jayanti Ct. Sud. 15, tl.
..
.. ..	Local, .. Tue.	Stage; ..	W.	Sl (pr); ca; Hanuman Jayanti Ct. Sud. 2 tl; lib; 2 dp.
Thane; 17-0	Bhiwandi; 8-0; ..	Local; ..	W; pl.	Sl (pr, m); tl; gym.
..
Kalyan; 20-0	Ambadi; 1-0; Sun.	Ambadi; 1-0	W.	Sl (pr); 2 tl.
Khadavali; 5-0	Padghe; 0-4; ..	.. 0-4	W.	Sl (pr); tl.
Kalyan; 17-0	Angaon; 3-0; Fri.	Angaon; ..	W.	Sl (pr); 2 tl.
Khadavali; 4-0	.. ..	.. 1-4	W.	....
Ambivali; 4-0	Bhiwandi; ..	Babgaon; 0-4	W.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; tl.
Kalyan; 32-0	Kusapur; 2-0; Wed.	.. 2-0	W.	Sl (pr); tl.
Thane; ..	Bhiwandi; ..	.. 0-3	W; t.	Sl (pr); tl.
Padghe; ..	.. 7-0; Sun.	.. 0-3	W.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; tl.
.. 20-0	.. 1-0; ..	Local; ..	W.	Sl (pr, m); 3 tl.
Thane; 14-0	Thane; ..	.. ..	Pl.	tl.
Khadavali; 2-0	Padghe; 1-0; Sun.	.. 0-2	..	Sl (pr); tl; mq.
Kalyan; 28-0	Kusapur; 0-4; Wed.	.. 0-4	W.	Sl (pr); tl.
Kalyan; 21-0	Dugad-phata; 2-0; ..	Stage; ..	..	Sl (pr); Hanuman Jayanti Ct. Sud. 15; lib.
Kalyan; 11-0	Bhiwandi; 11-0; ..	.. ..	W.	Sl (pr).
Kalyan; 30-0	Kusapur; 1-0; Wed.	.. 1-0	W.	Sl (pr); 2tl.
Kalyan; ..	.. ..	.. ..	W.	Sl (pr).
Kalyan; 6-0	Kalyan; 6-0; Thu.	.. 2-0	W.	....
.. ..	.. ..	.. ..	W.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; tl.
..
Vasai Rd.; 13-0	.. ..	Stage; ..	W.	Sl (pr); dh; lib; dp.
Kalyan; 10-0	Kalyan; 10-0; Thu.	.. 2-0	W.	mq; dp.
Kalyan; 22-0	Kusapur; 0-4; Wed.	Kunde; 0-4	W.	tl.
Kalyan; 22-0	Vajreshwari; 2-0; Tue.	Stage; ..	W.	3 Sl (pr); 2tl.
Kalyan; 25-0	Kusapur; 2-0; Wed.	.. 5-0	W.	tl.
Thane; 39-0	Dabhade; .. Tue.	.. 2-4	W.	Sl (pr).
Kalyan; 21-0	Ambadi; 1-0; Sun.	.. ..	W.	tl.
Khadavali; 6-0	Vadavali; 0-4; Wed.	Local; ..	W.	Sl (pr); 2 tl.
Thane; 13-0	Bhiwandi; 3-0; ..	.. ..	W; rv.	Sl (pr); tl.
Kalyan; ..	.. ..	.. ..	W.	Sl (pr); 3 tl; gym.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Gundawali; BWD. गुंदवळी	W 7-0	258; 970; 164; 342	Kalher; 3-0
Itade; BWD. इताडे	E 8-0	126; 648; 120; 221	Lonad; 1-0
Jambhivali Tarf Khambale; BWD. जाम्बिवली तर्फ खांबाले	NE ..	468; 431; 76; 211	.. ..
Jambhivali Tarf Kurde; BWD. जाम्बिवली तर्फ कुदे	NE 11-0	600; 323; 68; 110	Angaon; 8-0
Janval; BWD. जानवळ	E ..	273; 243; 38; 96	Ambivali; 7-0
Junandurkhi; BWD. जुनांदुर्खी	NW 3-0	1965; 1534; 240; 448	.. 3-0
Kalambholi; BWD. कळंबहोली	NE 13-0	373; 272; 49; 78	Padghe; 4-0
Kalher; BWD. काल्हेर	SW 5-0	1289; 2722; 458; 490	.. 10-0
Kalwar; BWD. कालवार	SW 2-0	497; 1184; 163; 310	Bhiwandi; 2-0
Kamatgher; BWD. कामतघर	SW 2-0	1044; 1642; 306; 275	Local; ..
Kambe; BWD. कांबे	NW 2-0	1365; 1672; 295; 430	Bhiwandi; 2-0
Kandali Bk.; BWD. कांदळी बुद्रुक	NE 16-0	467; 328; 59; 120	Padghe; 3-0
Kandali Kh.; BWD. कांदळी खुर्द	NE 16-0	150; 58; 8; 26	.. 3-4
Kandali Tarf Rahur; BWD. कांदळी तर्फ राहूर	NE 30-0	595; 296; 44; 75	.. ..
Kaneri; BWD. कनेरी	SW 1-0	373; 2974; 976; 7	Kamat- ghar; 1-0
Karanjoti; BWD. करंजोटी	NE 19-0	504; 470; 83; 139	Vadavli; 2-0
Karivali; BWD. कारीवली	W 1-0	733; 1015; 153; 23	Bhiwandi; 1-0
Karamale; BWD. करमाळे	NE 17-0	410; 154; 28; 71	Dighashi; 1-4
Kasane; BWD. कासणे	NE ..	1680; 760; 148; 214	.. ..
Kasheli; BWD. कशेली	SW 6-0	888; 1387; 275; 190	Kanher; 1-0
Kashivali; BWD. काशिवाली	NE ..	286; 309; 52; 69	Vadale; 1-0
Katai; BWD. काटई	W 1-0	881; 1637; 358; 365	Local; ..
Kawad Bk.; BWD. कवाड बुद्रुक	N 5-0	933; 419; 81; 154	Angaon; 1-4
Kawad Kh.; BWD. कवाड खुर्द	N 5-0	1309; 1812; 399; 285	Angaon; 2-4
Kelhe; BWD. केल्हे	NE 17-0	584; 166; 40; 87	Khambale 4-4
Kevani; BWD. केवणी	SW ..	466; 1178; 197; 533	Kanher; 2-0
Khadki Bk.; BWD. खडकी बुद्रुक	NW 10-0	1299; 411; 81; 162	.. 10-0
Khadki Kh.; BWD. खडकी खुर्द	NW ..	3947; 104; 18; 63	.. ..
Khaling Bk.; BWD. खालींग बुद्रुक	NE 12-0	938; 866; 135; 159	Padghe; 2-0
Khaling Kh.; BWD. खालींग खुर्द	NE 9-0	820; 266; 50; 138	Padghe; 5-0
Kharbao; BWD. खारबाव	W 5-3	2879; 3151; 503; 1166	Local; ..

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Thane; 16-0 Ambivali; 2-0	Bhiwandi; 7-0; .. Padghe; 6-0; Sun.	Purna; 1-0	W.	Sl (pr, m); 2tl; gym. Sl (pr); tl.
Thane; .. Padghe; 5-0 Kalyan; 11-0	Dabhad; 1-0; Tue. Padghe; 5-0; Sun. Bhiwandi; 4-0; ..	Pachapur; 0-4	W. W. W.	Sl (pr). Sl (pr); Ct. Sud. 15; 2tl. Cs; Ct. Sud. 15; 13 tl; dg; gym.
Khadavali; 1-0	Padghe; 4-0; Sun. .. ..	.. 0-4 Local; ..	W. ..	Sl (pr); tl. Sl (pr, m); 2tl; m; dh; lib; 3 dp.
Kalyan; 10-0 Kalyan; 7-0	.. .. Kalyar; 7-0; Thu.	.. 1-0 .. 1-0	W. W.	Sl (pr); 2 tl; 2 gym; ch; lib. 3 Sl (pr, m, h); Ramnavami Ct. Sud. 9; Hanuman Jayanti Ct. Sud. 15; 4 tl; dg; gym; 2 lib; 4dp.
Kalyan; 8-0 Vashind; 3-0 Thane; 25-0	Angaon; 6-0; Fri. Padghe; 3-0; Sun. Dabhad; 4-4; .. ..	.. .. .. .. Khambale;	W. W. W. W.	Sl (pr); tl; dg. Sl (pr); tl. Sl (pr); tl. Sl (pr); 2 tl.
Kalyan; 8-0	Kalyan; 8-0; Thu. .. ..	.. 0-4 .. 4-0	W; rv. W.	Sl (pr); 2 tl; dg; 3 dp.
Kalyan; 8-0 Kalyan; 22-0	Bhiwandi; Bhiwandi; 17-0;	Local; 1-4	W. W. W.	2 tl; gym; lib. Sl (pr); tl. Sl (pr); m; tl; Cch.
Thane; 5-0 Padghe; 10-0	Thane; 5-0; Sun. Angaon; .. ..	.. 0-1 .. 1-0	Pl. W. W.	Sl (pr); 2 tl; 2 dp. Sl (pr); Ct. Sud. 15; tl. Sl (pr); Hanuman Jayanti.
Kalyan; 13-0 Kalyan; 15-0 Washind; 10-0	Angaon; 1-4; Fri. Angaon; 2-4; Fri. Dabhad; 4-4; Tue.	.. 1-0 Kham- bale; 4-0	W. W.	Sl (pr); Ganpati Utsav; 2 tl. 3 Sl (pr); 8tl; gym; 3dp. Sl (pr); tl.
Thane; 14-0 Kalyan; 10-0	Thane; 14-0; .. .. .. .. ..	.. .. Local;	Pl. W.	Sl (pr); tl. Sl (pr); 2 tl.
Kalyan; 19-0 Kalyan; 16-0 Thane; 15-0	Padghe; 2-0; .. Angaon; 4-0; Fri. .. ..	.. .. .. 3-0 .. 5-0	W. W. W.	2 Sl (pr); tl. Sl (pr); tl. Sl (pr, m); cs; 3 tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Khambale; BWD. खांबाळे	.. NE ..	1194; 708 130; 170	Local; ..
Khandape; BWD. खांदपे	.. NE ..	417; 580; 126; 153	Vadale; 1-0
Khandaval; BWD. खांदवल	.. NE 13-0	146; 204; 31; 88	Padghe; 4-0
Khanivali; BWD. खानिवली	.. NE 30-0	2445; 586; 107; 215	.. 3-0
Kharivali; BWD. खरिवली	.. NE ..	825; 390; 64; 159	.. ..
Khativali; BWD. खातिवली	.. N 13-0	255; 232; 36; 67	Dighashi; 0-1
Khoni; BWD. खोनी	.. N 1-0	445; 1715; 357; 156	.. 1-0
Kiravali Duravali; BWD. किरवली दुरवली	.. NE ..	903; 397; 56; 155	Kham- bala; 1-4
Kiravali Tarf Sonale; BWD. किरवली तर्फ सोनाळे	.. E 8-0	350; 539; 89; 138	Lonad; 1-0
Kolivali; BWD. कोलीवली	.. N 5-0	616; 654; 117; 234	Angaon; 1-4
Ken; BWD. कोत	.. SE 10-0	1370; 4086; 749; 417	Local; ..
Kopar; BWD. कोपर	.. SW 5-0	168; 509; 83; 72	Kalher; 0-3
Koshimbe; BWD. कोशिंबे	.. NE ..	1181; 1066; 605; 395	.. ..
Koshimbi; BWD. कोशिंबी	.. NE ..	491; 601; 93; 127	Angaon; 6-0
Kuhe; BWD. कुहे	.. NW 12-0	3388; 810; 154; 433	.. ..
Kukase; BWD. कुकसे	.. NE 7-0	666; 652; 99; 180	Padghe; 3-0
Kurund; BWD. कुरुंद	.. NE 9-0	1103; 1210; 190; 389	Padghe; 1-0
Kumbharshiv; BWD. कुंभारशिव	.. NE ..	489; 221; 34; 81	Vadavli; 2-0
Kunde; BWD. कुंदे	.. NE ..	1561; 954; 149; 442	.. ..
Kusliwali; BWD. कुशिवली	.. NE 13-0	703; 193; 32; 80	Kham- bala; 0-4
Lakhiwali; BWD. लाखिवली	.. NW 10-0	3098; 931; 174; 545	.. 10-0
Lap Bk. BWD. लाप बुद्रुक	.. NE 12-0	1095; 733; 105; 216	Kham- bala; 3-0
Lap Kh.; BWD. लाप खुर्द	.. NE 12-0	564; 604; 124; 136	Kham- bala; 3-0
Lonad; BWD. लोनाड	.. E ..	2864; 2198; 390; 743	Padghe; 6-0
Mahap; BWD. महाप	.. NE ..	639; 263; 47; 142	.. ..
Mahapoli; BWD. महापोली.	.. N ..	690; 1140; 215; 313	.. 2-0
Mainde; BWD. मैंदे	.. NE 17-0	1502; 656; 108; 274	.. 3-4
Malbidi; BWD. मालबिडी	.. N 10-0	758; 574; 89; 189	Angaon; 6-0
Manivali; BWD. मानिवली	.. N ..	173; 301; 51; 99	Angaon; 6-0
Mohili; BWD. मोहोली	.. N 12-0	1811; 589; 95; 290	Angaon; 6-0
Mohondul; BWD. मोहोदुळ	.. NE 19-0	1796; 574; 101; 153	.. 3-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
.. ..	Dabhad; .. Tue.	Stage; ..	W.	SI (pr); tl; dp.
.. ..	Padghe; 7-0; Sun.	.. ..	pl.	SI (pr); 2 tl.
Ambivali; 5-0	Padghe; 4-0; Sun.	.. ..	W.	Cs; Hanuman Jayanti Fr. Ct. Sud. 15; 2tl; Cch.
.. 5-0	.. 5-0; ..	.. ..	W.	SI (pr); cs; tl.
..
Kalyan; 21-0	Ambadi; 1-0; Sun.	Ambadi; 1-0	W.	SI (pr); tl.
Kalyan; 16-0	Angaon; 7-0; ..	.. ..	W.	SI (pr); Hanuman Jayanti Ct. Sud. 15 tl; mq; 3 dp.
.. ..	Dabhad;	Dabhad; ..	W.	SI (pr); tl.
Ambivali; 2-0	Padghe; 6-0; Sun.	.. ..	W.	SI (pr); tl.
Kalyan; 13-0	Angaon; 1-4; Fri.	.. 1-0	W.	SI (pr); Hanuman Jayanti Fr. Ct. Sud. 15.
Kalyan; 5-0	Kalyan; 5-0; ..	Local; ..	W.	SI (pr, m, h); Ramna- vami Fr. Ct. Sud. 9; 3tl; mq; dh; 2gym; lib; 4 dp.
.. ..	.. ..	.. 0-3	W.	SI (pr).
..
.. 2-0	Dugad; 2-0; Wed.	Vadwali; 2-0	W.	SI (pr); tl; gym; lib.
.. 12-0	.. 12-0; ..	.. 2-0	..	Ct. Sud. 15; tl.
Khadavali; 7-0	Padghe; 3-0; Sun.	.. 0-4	W.	SI (pr); m; tl.
Khadavali; 5-0	Padghe; 5-0; Sun.	.. ..	..	SI (pr); cs; tl.
Khadavali; 5-0	.. ..	.. 5-0	W.	SI (pr).
Kalyan; 25-0	.. 20-0; ..	.. ..	W.	SI (pr); cs; tl.
.. ..	Dhabhad; 1-0; ..	Kham- bala; 1-0	W.	SI (pr).
Kalyan; 20-0	Bhiwandi;	Local; ..	W.	SI (pr); 2tl.
.. 19-0	Dabhad; 3-0; ..	.. 3-0	..	SI (pr) tl.
.. 19-0	Dabhad; 3-0; ..	.. ..	W.	SI (pr).
Ambivali; 5-0	.. ..	.. ..	W.	SI (pr); tl.
..
Thane; 38-0	Dabhad; 1-0; Tue.	.. 2-0	W.	SI (pr); tl.
.. 25-0	Dabhad; 4-0; ..	Kham- bala; 4-0	W.	SI (pr); tl.
Kalyan; 16-0	.. 1-0; ..	Palkhane; 2-0	W.	SI (pr); tl.
Kalyan; ..	.. 16-0; ..	Local; 4-0	W.	SI (pr); m; 2tl.
Kalyan; 20-0	Dugad 3-0; ..	Dugad; 1-4	W.	SI (pr); m; tl.
.. Phata;	.. ..	.. ..	..	..
Khadavali; 6-0	.. ..	.. 5-0	W.	SI (pr).

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural population	Post Office; Distance
1	2	3	4
Murhe; BWD. मुहे	NE ..	595; 239; 39; 119	Angaon; 7-0
Muthaval; BWD. मुथावळ	E 7-0	83; 277; 42; 128	Lonad; 1 4
Nagaon; BWD. नागाव	E 0-2	790; 7691; 1734; 275	Bhiwandi; 0 2
Nandithar; BWD. नदीठाणे	N ..	923; 492; 83; 246	Angaon; 2-0
Nardkar; BWD. नारकर	E 8-0	1203; 935; 160; 405	Lonad; 2-0
Narpoli; BWD. नारपोली	SW 3-0	559; 10262; 2291; 130	Kamat- ghat; 1-4
Newade; BWD. नेवाडे	NE ..	2037; 212; 44; 122	Kham- bale; 4-0
Nimbavali; BWD. निंबवली	NE 3-4	351; 531; 91; 291	Vadape; 2-0
Nizamapur; BWD. निझामपूर	included in urban area XV		
Ovali; BWD. ओवळी	S 7-0	500; 588; 93; 99	Kalher; 4-0
Pachhapur; BWD. पाछापूर	NE 18-0	518; 379; 76; 132	Khambale; 2-0
Pedghe; BWD. पडगे	NE 15-0	774; 2717; 477; 113	Local; ..
Pahare; BWD. पहारे	N ..	635; 507; 101; 287	Dighashi; 1-4
Pali; BWD. पाली	NE ..	192; 334; 60; 92	Khambale; 1-0
Palivali; BWD. पालीवली	NW 11-0	1107; 474; 95; 123	Bhiwardi; ..
Palkhane; BWD. पालखाणे	N 7-0	250; 443; 54; 192	Angaon; 3-0
Parivali; BWD. पारीवली	N 5-0	516; 618; 119; 268	Angaon; 1-4
Paye; BWD. पाये	W ..	4926; 1261; 219; 590	Kharbao; 6-0
Paygaon; BWD. पायगाव	NW 10-0	2455; 1529; 248; 641	Kharbao; 4-0
Pilanze Bk.; BWD. पिळंके बुद्रुक	N ..	762; 579; 92; 256	Angaon; 1-4
Pilanze Kh.; BWD. पिळंके खुर्द	N ..	903; 366; 62; 175	Angaon; 2-0
Pimpalas; BWD. पिंपलास	SE 7-0	1883; 2773; 438; 807	Local; ..
Pimpalshet Bhuishet; BWD. पिंपळशेट भुईशेट	NW 9-0	1310; 411; 72; 231	.. 8-0
Pimpalghar; BWD. पिंपळघर	SE 7-0	245; 765; 120; 149	Saravali; 0-2
Pise; BWD. पिसे	NE ..	1219; 1045; 167; 479	Bhiwandi; 18-0
Pogaon; BWD. पोगाव	NE 2-0	797; 370; 66; 90	Bhiwandi; 2-0
Pundas; BWD. पुंढास	NE 8-0	714; 557; 91; 255	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Kalyan; 19-0	Angaon; 4-0; Fri.	.. ..	W.	Sl (pr); tl.
Ambivali; 3-0	Padghe; 6-0; Sun.	.. ..	W.	Sl (pr).
Kalyan; 7-0	Bhiwandi; 0-2; Wed.	.. ..	W.	Sl (pr); 3 tl; 3 mq; dg; 6dp.
Kalyan; 14-0	Angaon; 2-0; Fri.	.. 0-4	W.	Sl (pr); tl.
Ambivali; 1-0	Padghe; 8-0; Sun.	.. ..	W.	3 tl.
Thane; 8-0	Kalyan; 9-0; Thu.	Local; ..	W; pl.	3 Sl (pr); cs; tl; mq; dg.
Vashind; 10-0	Dabhad; 4-0; Tue.	Kham- bale; 4-0	W; rv.	....
Kalyan; 12-0	Bhiwandi; 4-0; ..	.. 0-4	W.	Sl (pr); tl.
Thane; 17-0	Bhiwandi; 7-0; ..	.. ..	..	Sl (pr); m; gym.
Thane; 38-0	Dabhad; .. Tue.	Kham- bale; 2-0	W.	Sl (pr); tl.
Khadavali; 3-0	Local; ..	Local; ..	..	Sl (pr, m, h); 5 tl; dg; ch; lib; dp.
Kalyan; 20-0	Ambadi; 1-0; Sun.	.. 0-4	W.	Sl (pr); 2tl.
.. ..	Dabhad;	Dabhad; 1-0	W.	Sl (pr); tl.
Kalyan; 21-0	Bhiwandi; .. ..	.. ..	..	Sl (pr); tl.
Kalyan; 17-0	Dugad- phata; 1-0; Wed.	Local; ..	W.	Sl (pr); 2tl.
Kalyan; 13-0	.. .. Fri.	.. 0-4	W.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; tl.
Thane; 25-0	Thane; 25-0; ..	Kharbao; 6-0	W.	2 Sl (pr); c.; Vsk. Sud. 12; 2tl; ch.
Thane; 23-0	.. ..	Kharbao; 4-0	W.	3 Sl (pr); cs; Hanuman Jayanti Ct. Sud. 15; Vsk. Sud. 12; 3tl.
Kalyan; 17-0	Angaon; 1-4; Fri.	Angaon 1-4	W.	Sl (pr); 3tl.
Kalyan; 16-0	Angaon; 2-0; Fri.	Angaon; 2-0	W.	Sl (pr); tl.
Kalyan; 6-0	Kalyan; 6-0; ..	.. ..	W.	Sl (pr); m; 2tl.
.. ..	.. ..	.. ..	W.	....
Kalyan; 0-8	Kalyan; 0-8; Thu.	.. 0-4	W.	2 Sl (pr); Ct. Sud. 15; tl.
Titwala; 4-0	Kalyan;	Anane; 2-0	W.	2 Sl (pr); cs; tl; dp
Kalyan; 9-0	Bhiwandi; 2-4; ..	Chavindre; 0-4	W.	Sl (pr); tl.
Kalyan; 15-0	Angaon; 3-0; Fri.	.. 3-0	W.	Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Purne; BWD. पूर्णे	.. SW ..	674; 1527; 162; 156	.. 1-0
Rahur; BWD. राहुर	.. NE ..	674; 295; 45; 111	.. .. 2-0
Rahanal; BWD. राहनाळ	.. SW 3-0	895; 894; 121; 306	.. 3-0
Ranjanoli; BWD. राजनोली	.. SE 5-0	330; 561; 122; 85	.. 5-0
Sagaon; BWD. सागाव	.. NE 20-0	635; 461; 175; 181	Dighashi; 6-0
Sakharoli; BWD. साखरोली	.. N 8-0	250; 231; 40; 119	Angaon; 2-0
Sange; BWD. सांगे	.. E 8-0	337; 386; 77; 124	Lonad; 2-0
Sape; BWD. सापे	.. NE ..	536; 594; 107; 194	.. 3-0
Saravali Tarf Sonale; BWD. सारवली तर्फ सोनाळे	.. SE 7-0	559; 1292; 207; 248	Local; ..
Savad; BWD. सवाद	.. E 8-0	442; 589; 84; 160	Lonad; 1-0
Savandhe; BWD. सावधे	.. N ..	275; 210; 33; 53	Vadpa; 4-0
Savarali; BWD. सावरली	.. N 14-0	248; 148; 26; 35	Vajresh- wari; 3-0
Savaroli; BWD. सावरोळी	.. NE ..	524; 64; 12; 23	.. ..
Shedgaon; BWD. शेडगाव	.. NE 14-0	637; 395; 73; 110	Dighashi; 1-0
Shelar; BWD. शेळार	.. N 2-0	1301; 2328; 408; 575	Bhiwandi; 2-0
Shirgaon; BWD. शिरगाव	.. NE ..	391; 111; 23; 67	Khandala; 3-0
Shirole; BWD. शिरोळे	.. NE 17-0	891; 528; 94; 201	.. ..
Sonale; BWD. सोनाळे	.. SE 5-0	1507; 676; 125; 219	Bhiwandi; 3-0
Sor; BWD. सोर	.. NE 13-0	471; 308; 57; 87	Padghe; 2-0
Supegaon; BWD. सुपेगाव	.. N 6-0	655; 713; 138; 149	.. 1-0
Talavali Tarf Rahur; BWD. तळवली तर्फ राहुर	.. NE ..	479; 253; 42; 98	.. ..
Talavali Tarf Sonale; BWD. तळवली तर्फ सोनाळे	.. NE 9-0	896; 937; 174; 289	Padghe; 1-0
Tembhavali; BWD. टेम्बवली	.. NW 3-2	358; 691; 118; 192	Bhiwandi; 3-0
Temghar; BWD. टेम्घर	.. SE 2-0	780; 2421; 470; 246	Bhiwandi; 2-0
Tuloshi; BWD. तुळोशी	.. NE ..	463; 138; 24; 46	Vadavli; 2-0
Umbarkhand; BWD. उंबरकाव	.. NE ..	592; 230; 48; 122	Khambale; 3-4
Usgaon; BWD. उसगाव	.. NW 22-0	3010; 637; 109; 251	Local; ..
Usroli; BWD. उसरोळी	.. NE 9-0	576; 185; 22; 51	Padghe; 6-0
Vadpe; BWD. वडपे	.. NE ..	1158; 539; 104; 132	Local; ..
Vadavali Tarf Dugad; BWD. वडवली तर्फ दुगाड	.. N ..	288; 458; 68; 214	.. 5-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Thane; 7-0	Angaon; 9-0; Fri.	Local; ..	pl.	Sl (pr); Cs; Shivratra Magh. Vad. 30; 3tl.
Khadavali; 3-0	.. ..	.. 2-0	W.	Sl (pr).
.. 7-0	.. ..	.. 0-3	W.	Sl (pr); Cs; tl; lib; dp.
Kalyan; 10-0	Kalyan; 10-0; Thu.	.. 0-1	W.	Sl (pr).
Kalyan; 30-0	.. 1-4; Wed.	.. 1-4	W.	Sl (pr); Phg. Vad. 6 & 7; 3 tl.
Kalyan; 16-0	Angaon; 2-0; Fri.	Angaon; 2-0	W.	Sl (pr).
Ambivali; 1-4	Padghe; 7-0; Sun.	.. ..	W.	Sl (pr).
Khadavali; 7-0	Padghe; 3-0; Sun.	Talawali- phata; 1-0	W.	Sl (pr); Cs; tl; dp.
Kalyan; 5-0	Kalyan; .. ..	.. 0-2	W.	Sl (pr); Ct. Sud. 15; tl.
Ambivali; 3-0	Padghe; 6-0; Sun.	.. 1-0	..	Sl (pr); tl.
Thane; 13-0	Bhiwandi; 2-6; ..	.. ..	W; rv.	.. ..
Kalyan; 24-0	Ambadi; 2-0; ..	Stage; ..	W.	Sl (pr); tl.
..
Kalyan; 22-0	Dabhad; 0-4; Tue.	.. 0-4	W.	Sl (pr); tl.
Kalyan; 8-0	Bhiwandi; 2-0; ..	Stage; ..	W.	Sl (pr); 4 tl; 4 gym; ch; dp.
Khadavali; 10-0	.. ..	.. 3-0	W.	Sl (pr).
Dabhad; ..	.. .. Tue.	.. 1-4	W.	Sl (pr); tl.
Kalyan; 6-0	.. ..	.. 4-0	W.	Sl (pr); tl; ch; lib.
Khadavali; 1-0	Padghe; 2-0; Sun.	.. ..	W; pl.	Sl (pr); Cs; tl.
Kalyan; 12-0	Angaon; .. Fri.	.. ..	W.	Sl (pr); tl.
..
Washind; 2-0	Padghe; 1-0; Sun.	.. 0-4	W.	3 Sl (pr); Cs; mq; dg.
Kalyan; 12-0	Bhiwandi; 3-0; ..	.. 0-5	W.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; 2 tl; dg.
Kalyan; 5-0	Bhiwandi; 2-0; ..	Local; ..	W.	2 Sl (pr); 2 tl.
Khadavali; 5-0	.. ..	.. 5-0	W.	Sl (pr).
.. ..	Dabhad; 4-4; Tue.	Kham- bale; 4-0	W; rv.	Sl (pr); Cs.
Vasai Rd; 20-0	Vajreshwari; 4-0; Tue.	.. ..	W.	Sl (pr).
Khadavali; 9-0	Padghe; 6-0; Sun.	.. 3-0	W.	Sl (pr); 2 tl.
.. ..	Padghe; 7-0; Sun.	.. ..	W; pl.	Sl (pr); Hanuman Jayanti Ct. Sud. 15; tl; dp.
Khadavali; 3-0	.. 5-0; ..	.. 5-0	W.	Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Vadavali Tarf Rahur; BWD. वडवली तर्फ राहूर	NE ..	463; 849; 146; 345	.. ..
Vadavali Tarf Sonale; BWD. वडवली तर्फ सोनाळे (ओसाडगाव)	NE ..	213; 24; 5; 7	.. ..
Vadavali Vajreshwari; BWD. वडवली वज्रेश्वरी	NW 21-0	468; 1198; 226; 188	Local; ..
Vadghar; BWD. वडघर	W 3-0	181; 505; 84; 118	Bhiwandi; 3-0
Vadunavghar; BWD. वडूनवघर	W 3-0	1356; 1469; 243; 547	Bhiwandi; 3-0
Vaghivali; BWD. वाघिवली	N ..	514; 380; 63; 176	.. 3-0
Vahuli; BWD. वाहूली	NE 7-0	884; 400; 67; 73	Padghe; 2-0
Val; BWD. वळ	S 6-0	426; 660; 55; 133	Kalher; 4-0
Valshind; BWD. वालशिंद	NE ..	748; 243; 49; 130	.. ..
Vandre; BWD. वान्द्रे	NE ..	401; 626; 94; 172	Padghe; 1-0
Vape; BWD. वापे	NE ..	1455; 295; 48; 90	.. ..
Vareth; BWD. वारेठ	N 11-0	303; 442; 66; 129	Dighashi; 2-0
Vashere; BWD. वाशेरे	NE ..	485; 213; 36; 48	Padghe; 4-0
Vawali Tarf Dugad; BWD. वावली तर्फ दुगाड	N 12-0	187; 350; 59; 134	Angaon; 5-0
Vedhe; BWD. वेढे	N 12-0	884; 728; 121; 321	Vajreshwari. 4-0
Vehele; BWD. वेहेळे	S ..	1591; 3215; 508; 770	Pimplas; 2-0
Yavali; BWD. यावई	NE 3-4	510; 327; 57; 95	Vadape; 2-0
Zidake; BWD. झिडके	N 12-0	438; 910; 138; 232	.. 3-0
DAHANU TALUKA			
Agwan; DHN. आगवान	SE 6-0	3467; 1764; 403; 912	Saroli; 2-0
Aine; DHN. ऐने	SE 16-0	1001; 561; 90; 208	Vadhane; 5-0
Ambesari; DHN. अंबेसरी	NE ..	4602; 2264; 391; 973	.. ..
Ambivali; DHN. आंबिवली	SE 16-0	821; 1094; 243; 292	Vadhane; 5-0
Ambivali Tarf Bahare. DHN. आंबिवली तर्फ बहारे	NE ..	1495; 371; 67; 255	.. ..
Asangaon; DHN. आसनगाव	SE 10-0	4442; 2597; 550; 807	Vangaon; 2-0
Asave; DHN. आसवे	E ..	1529; 1967; 382; 559	.. ..
Ashte; DHN. आष्टे	NE 62-0	2289; 506; 79; 256	Malegaon; 4-0
Aswali; DHN. अस्वाली	NE 16-4	1296; 1080; 191; 343	Gholwad; 6-0
Awadhani; DHN. आवढणी	E 20-0	1447; 871; 140; 261	Vadhane; 2-0
Badapokharan; DHN. बडापोखरण	S 2-6	3721; 5884; 1064; 1349	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
..
..
Vasai Rd.; 20-0	Local;	Local; ..	pl.	2Sl (pr, m); Vajreshwari Devi Fr. 14th April; 3 tl; m; 2 db; lib; 2 dp.
Kalyan; 11-0	Bhiwandi; 3-0; ..	.. ..	W.	Sl (pr); tl.
Kalyan; 11-0	Bhiwandi; 3-0; ..	.. ..	W.	Sl (pr); tl.
Kalyan; 15-0	Angaon; 3-0; ..	.. ..	W.	Sl (pr); tl.
Khadavali; 7-0	Padghe; 2-0; ..	.. ..	W.	Sl (pr).
Thane; 18-0	Bhiwandi; 6-0; ..	Valpada; 1-0	W.	2 Sl (pr); tl; gym.
.. ..	.. ..	.. ..	W.	Sl (pr); tl.
.. 2-0	.. ..	Angaon; 1-0	W.	2 tl; mq.
..
Vasai Rd.; 28-0	Ambadi; 1-4; Sun.	Local; ..	W.	3 Sl (pr); 4 tl.
Ambivali; 5-0	Padghe; 4-0; Sun.	.. ..	W.	Sl (pr); 2 tl.
Thane; 24-0	Dugad Fata; 0-5; Wed.	Dugad- Fata; 0-5	W.	Sl (pr); tl.
Vasai Rd.; 26-0	Ambadi; 2-4; Sun.	Stage; ..	..	2 Sl (pr); tl.
Kalyan; 5-0	.. ..	Anjur; 4-0	W.	3 Sl (pr); 3 tl.
Kalyan; 13-0	Bhiwandi; 4-0; ..	.. ..	W.	....
Kalyan; 22-0	Ambadi; 0-4; Sun.	Stage; ..	W; rv.	2 Sl (pr, m); Cs; tl; lib.
Dahanu Road; 6-0	Vangaon; 5-0; Sun.	.. 1-0	W.	Sl (pr).
Vangaon; 10-0	Ganjad; 1-0; Tue.	Local; ..	W.	Sl (pr), 2 tl; ch.
..
Dahanu Road; 16-0	Urse; 3-0; Mon.	Sapani 3-0	W.	Sl (pr); tl.
..
Vangaon; 2-0	Vangaon; 2-0; Sun.	Vangaon; 2-0	W.	5 Sl (pr); Cs; 2 tl.
..
Dahanu Road; 62-0	.. .. Sun.	Kalaw- devi; 3-0	W, rv.	2 Cs (1 fmg).
Gholwad; 6-0	Bordi; 4-4; Thu.	Bordi; 4-0	W, rv.	Sl (pr); ch; Cch.
Dahanu Road; 18-0	Ganjad; 2-0; Tue.	Ganjad; 2-0	W.	Sl (pr); Cs.
Dahanu Road; 2-6	Dahanu Road; 2-6; Daily.	Local ..	W.	12 Sl (7 pr. 4 m, h); 2 Cs (1 fmg); Ct. Pournima Fr; dh; lib; 2 dp.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Bahare; DHN. बहारे ..	NE 27-5	1126; 832; 145; 484	Dhundal- 2-3 wadi;
Bandhaghar; DHN. बांधघर ..	E 32-0	1177; 574; 90; 246	Bapgaon; 3-0
Bapgaon; DHN. बापगाव ..	E 22-0	1277; 1190; 249; 273	Local; ..
Bavade; DHN. बावडे ..	S 11-0	1766; 1148; 203; 400	Local; ..
Bendgaon; DHN. बेंडगाव ..	NE 51-0	748; 225; 42; 64	Modgaon; 2-0
Bharad; DHN. सराढ ..	SE 15-0	901; 396; 65; 143	Charoti; 1-0
Bhawadi; DHN. सबाडी ..	E 25-0	289; 352; 66; 101	Talawade; 1-0
Bordi; DHN. बोर्डी ..	N 10-0	4796; 8451; 1493; 1873	Local; ..
Bramhanwadi; DHN. ब्राह्मणवाडी ..	NE 25-0	424; 245; 43; 150	Dhundal- 1-4 wadi;
Chalani; DHN. चळणी ..	E 36-0	4396; 1106; 181; 326	Bapgaon; 7-0
Chandigaon; DHN. चंदीगाव ..	S 3-0	1388; 951; 202; 352	Dahanu; 3-0
Chari Tarf Jamshet; DHN. चरी तर्फ जामशेत ..	E 18-0	676; 1065; 207; 670	Veti; 3-0
Chari Tarf Pawan; DHN. चरी तर्फ पवन ..	E 6-0	1744; 232; 48; 138	Ashagad; 1-4
Charoti; DHN. चरोटी ..	E 15-0	2030; 1691; 301; 474	Local; ..
Chikhale; DHN. चिखले ..	N 4-0	2095; 3002; 549; 924	Local; ..
Chimbave; DHN. चिंबावे ..	N 6-0	652; 918; 155; 289	Kosbad; 1-0
Chinchale Tarf Bahare; DHN. चिंचले तर्फ बहारे ..	NE 23-0	927; 821; 144; 491	Dhundal- 2-0 wadi;
Chinchale Tarf Gambhirgad; DHN. चिंचले तर्फ गंभीरगाव ..	NE ..	2105; 615; 110; 285	.... ..
Chinchani; DHN. चिंचणी ..	S 7-0	1443; 9078; 1553; 1275	Local; ..
Dabchhari; DHN. दाबचरी ..	NE 30-0	3708; 2505; 464; 1260	Local; ..

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Dahanu 27-0	Dhundal- wadi; 2-0; Tue.	Dhundal- 2-0 wadi;	W.	Sl (pr); Cs; Cch.
Dahanu 34-0	Saiwan; .. Tue.	Local; ..	W.	....
Dahanu 22-0	Local; .. Sat.	Local; ..	W.	3 Sl (pr, m, h); Cs; 3 tl.
Vangaon; 2-4	Vangaon; 2-4; Sun.	Local; ..	W.	3 Sl (pr); Cs; tl.
Dahanu 51-0	Udhwa; .. Sun.	Kalam- 1-4 dev;	W; rv.	....
Dahanu 15-0	Varoti; 3-0; Wed.	Charoti; 1-0	W.	Sl (pr).
Dahanu 25-0	Talawade; 1-0; ..	Tala- 1-0 wade;	W; rv.	Sl (pr); tl.
Gholwad; 1-0	Local; .. Thu.	Local; ..	W.	10 Sl (7 pr, m, h, clg); Cs.; 4tl; mq; dh; gym; lib; 2 dp.
Dahanu 23-0	Dhundal- wadi; 1-4; Tue.	Dhundal- 2-0 wadi;	W.	....
Dahanu 33-0	Saiwan; 3-0; Tue.	Saiwan; 3-0	W; n.	Sl (pr).
Dahanu 3-0	Dahanu; 3-0; Daily.	.. ..	W.	Sl (pr); Ct. Fr; tl.; ch.
Dahanu 18-0	Varoti; 2-0; Wed.	Local; ..	W.	Sl (pr); 2 Cs.
Dahanu 5-0	Ganjad; 5-0; Tue.	.. 2-0	W.	Sl (pr).
Dahanu 15-0	Varoti; 2-0; Wed.	Local; ..	W.	Sl (pr); 3 Cs; tl; dp.
Dahanu 5-0	Dahanu; .. Daily.	Local; ..	W.	Sl (pr); Cs; 3 tl.
Dahanu 5-0	Dahanu; 5-0; Daily.	Kostad; ..	W.	Sl (pr); Cs.
Dahanu 23-0	Dhundal- wadi; 2-0; Tue.	Ambe- 3-0 wadi;	W.	Sl (pr).
....
Vangaon; 5-0	Local; .. Daily.	.. ..	W.	9 Sl (7 pr, m, b); 2 Cs; (i) Nageshwari Mahastivratri Fr. Mg. (ii) Datt Jayanti Fr. Mrg. pournima, (iii) Ramnaumi Fr. Ct. Sud 9; ch; 2 lib; 2dp; mq; dh; dg.
Dahanu 30-0	Dhundal- wadi; 3-0; Tue.	Local; ..	W; t.	2 Sl (2 pr); Cs; tl; dp.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Dabhadi; DHN. दामाडी ..	NE 35-0	3471; 1211; 226; 390	Udhwa; 10-0
Dabhale; DHN. दाभळे ..	SE 19-0	838; 686; 117; 212	Gowane; 1-0
Dabhon; DHN. दामोण ..	SE 16-0	4453; 1409; 229; 530	Ganjad; 3-0
Dahanu; (Urban area XI); डहानू नागरी विभाग ११ ..	HQ ..	5.54; 9,637; 1,713; 2,423	Local; ..
Dahyale; DHN. डह्याळे ..	E 20-0	1951; 729; 118; 385	Bapgaon; 3-0
Dedale; DHN. देवाळे ..	S 10-0	691; 698; 126; 285	.. 2-0
Dchane; DHN; देहणे ..	SE 10-0	1086; 1436; 271; 466	Dahanu 7-0 Rd.;
Dhamangaon; DHN. धामणगाव ..	NE 22-0	3138; 2203; 502; 884	Dabchari; 5-0
Dhamatane; DHN. धामटणे ..	SE 27-0	970; 658; 133; 236	Tawe; 2-4
Dhaniwari; DHN. धनिवरी ..	E 23-0	4318; 2407; 384; 1086	Ganjad; 6-0
Dharampur; DHN. धरमपूर ..	E 25-0	1700; 968; 136; 591	Bapgaon; 1-0
Dhundalwadi; DHN. धुंदलवाडी ..	NE 25-0	529; 654; 135; 153	Local; ..
Diwashi; DHN. दीवाशी ..	NE 60-0	1831; 664; 116; 445	Udhwa; 7-0
Gangangaon; DHN. गांगणगाव ..	NE 30-0	2852; 1730; 328; 661	Dhundal- 9-0 wadi;
Gangodi; DHN. गंगोडी ..	E 23-0	1025; 557; 97; 164	Bapgaon; ..
Ganjad; DHN. गंजाड ..	E 10-0	7013; 3917; 734; 1677	Local; ..
Ghadane; DHN. घाडणे ..	NE 19-0	772; 505; 87; 289	Dhundal- 4-0 wadi;
Ghol; DHN. घोळ ..	SE ..	1358; 767; 124; 322	Kasa kh.; ..
Gholwad; DHN. घोलवड ..	N 8-0	2811; 6133; 1208; 1267	Local; ..
Gowane; DHN. गोवणे ..	SE 12-0	1246; 943; 162; 308	Local; ..
Haladpada; DHN. हळदपाडा ..	NE ..	1908; 1140; 186; 288	.. ..
Jalwai; DHN. जळवाई ..	N 14-4	836; 660; 120; 239	Gholwad; 6-0
Jamshet; DHN. जामशेत ..	E 8-0	5233; 3059; 570; 1620	Local; ..
Kalnad; DHN. कैनाड ..	NE 7-0	8151; 6071; 966; 2241	Kosbad; 1-0
Kalamdevi; DHN. कळमदेवी ..	NE ..	884; 497; 89; 153	

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Dahanu 35-0 Road;	Saiwan; 8-0; Tue. ..	Saiwan; 8-0	W.	Sl (pr).
Vangaon; 2-0	Vangaon; 2-0; Sun.	Local; ..	W.	Sl (pr).
Vangaon; 10-0	Ganjad; 3-0; Tue.	.. 1-4	W.	Sl (pr); 2 tl; gym; ch.
Dahanu 2-4 Road;	Local; .. Daily.	Local; ..	W.	5 Sl (3 pr, m, h); 2 Cs; 9 tl.; 2 mq; 4 dh; gym; lib; 8 dp; Cch.
Dahanu 20-0 Road;	Varoti; 4-0; Wed.	Bapgaon; 3-0	W.	Sl (pr); 2 Cs.
Vangaon; 4-0	Vangaon; 4-0; Sun.	Local; ..	W.	Sl (pr); 2Cs; 2tl; ch; lib.
Vangaon; 3-0	Vangaon; 3-0; Sun.	Vangaon; 3-0	W.	2 Sl (pr); Cs; tl.
Dahanu 22-0 Road;	.. 8-0; ..	.. 8-0	W.	2 Sl (pr); Cs; Cch.
Dahanu 27-0 Road;	Varoti; 6-0; Wed.	Tawe; 2-4	W.	Sl (pr); Cs.
Dahanu 21-0 Road;	Dhundal- wadi; 7-0; Tue.	.. ..	W.	2 Sl (pr); 2Cs (mp, fmg).
Dahanu 23-0 Road;	Saiwan; .. Tue.	Local; ..	W; rv.	Sl (pr); tl.
Dahanu 25-0 Road;	Local; .. Tue.	.. 0-3	W.	2 Sl (2 pr); Cs (mp).
Dahanu 60-0 Road;	Udhwa; 7-0; Sun.	Udhwa; 7-0	W; rv.	2 Sl (2 pr).
Dahanu 30-0 Road;	Dhundal- wadi; 9-0; Tue.	.. 6-0	W.	Sl (pr); Cs; Cch.
Dahanu 23-0 Road;	Saiwan; .. Tue.	Bandh- ghar; 1-4	W; rv.	Sl (pr); tl.
Dahanu 10-0 Road;	Local; .. Tue.	Local; ..	W.	4 Sl (4 pr); 2 Cs; tl.
Dahanu 17-0 Road;	Dhundal- wadi; 7-0; Tue.	Dhundal- 7-0 wadi;	W; rv.	Sl (pr).
Dahanu 15-0 Road;	Varoti; 2-0; Wed.	Local; ..	W.	Sl (pr).
Local; ..	Bordi; 2-0; Thu.	Local; ..	W.	2Sl (pr); Cs; 5 tl; dh; ch; 2 dp; Cch.
Vangaon; 3-0	Vangaon; 3-0; Sun.	Local; ..	W.	Sl (pr); Cs; tl.
..
Gholwad; 6-0	Bordi; 4-4; Thu.	Bordi; 4-4	W; rv.	Sl (pr).
Dahanu 6-0 Road;	Ashagad; 3-0; Mon. (Saroli)	Saroli; 3-0	W.	2 Sl (2 pr); tl.
Dahanu 6-0 Road;	Dahanu; 6-0; Daily.	Kosbad; 3-0	W; rv.	4 Sl (3 pr, h); Cs; tl.
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kandarwadi; DHN. कांदरवाडी	.. E ..	3058; 597; 92; 327	.. ..
Kankradi; DHN. कंक्राडी	.. NE 4-0	611; 1101; 223; 512	Dahanu 2-0 Rd.;
Kapshi; DHN. कापशी	.. SE 16-0	1026; 642; 120; 278	Vangaon; 0-4
Karanjvira; DHN. करंजवीरा	.. NE ..	129; 570; 109; 181	.. ..
Kasa Kh.; DHN. कासा खुर्द	.. SE 15-4	756; 1286; 305; 247	Local; ..
Khambale; DHN. खंबाळे	.. SE 17-0	425; 320; 58; 137	Vangaon; 1-0
Khaniv; DHN. खानीव	.. E 24-0	1392; 751; 138; 455	Kasa Kh.; 3-0
Khubale; DHN. खुबाळे	.. NE ..	900; 502; 84; 149	.. ..
Khunawade; DHN. खुनवडे	.. NE 16-0	2580; 1067; 189; 355	Gholwad; 6-0
Kinhawali; DHN. किन्हवली	.. E 35-0	407; 1092; 212; 331	Udhwa; 12-0
Kolawali; DHN. कोळवली	.. S 16-0	229; 1298; 232; 416	Chlnch- 2-0 ani;
Kolhan; DHN. कोल्हान	.. SE 26-0	302; 293; 50; 183	Tawe; 1-0
Kosesari; DHN. कोसेसरी	.. E 27-0	1303; 450; 82; 136	Talawade; 1-4
Kotbi; DHN. कोटबी	.. SE 10-4	1266; 729; 144; 510	.. 2-4
Masoli; DHN. मसोली	.. N 2-0	6921; 2934; 594; 281	Dahanu 0-4 Rd.;
Malyan; Urban Area XII; DHN. मल्याण नागरी विभाग १२	.. NE 2-0	2.31; 7,519; 1,378; 263	Local; ..
Mhasad; DHN. म्हासाड	.. SE ..	424; 201; 37; 103	.. ..
Modgaon; DHN. मोडगाव	.. NE 38-0	4934; 2222; 394; 1117	Local; ..
Murbad; DHN. मुरबाड	.. SE 19-0	2354; 1115; 219; 472	Veti; 1-0
Nagzari; DHN. नागझरी	.. E 10-6	4348; 2463; 479; 1425	Ganjad; 5-0
Nandare; DHN. नंदारे	.. NE 5-0	251; 269; 47; 148	Dahanu 3-0 Rd.;
Narpad; DHN. नरपड	.. N 2-0	1752; 2563; 440; 665	.. ..
Nikawali; DHN. निकावली	.. SE 16-0	587; 243; 37; 111	Vadhane; 5-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
..
Dahanu 2-0 Road;	Dahanu; 2-0; Daily.	.. 0-1	W.	Sl (pr); ch.
Vangaon; 0-4	Vangaon; 0-4; Sun.	Vangaon; 0-4	W.	Sl (pr).
..
Dahanu 15-4 Road;	Varoti; 0-1; Wed.	Local; ..	W.	2 Sl (pr, m); Cs.; tl; ch; dp.
Vangaon; 1-0	Vangaon; 1-0; Sun.	.. 0-2	W.	2 Sl (pr); Cs.
Dahanu 21-0 Road;	Varoti; 3-0; Wed.	Varoti; 3-0	W.	Sl (pr); Cs.
..
Gholwad; 6-0	Bordi; 5-0; Thu.	Gholwad; 4-0	W; rv.	Sl (pr).
Dahanu 35-0 Road;	Saiwan; 8-0; Tue.	Saiwan; 8-0	W.	Sl (pr).
Vangaon; 4-0	Vangaon; 4-0; Sun.	.. 0-4	W.	3 Sl (pr); 2Cs; Hanuman Jayanti Fr. Ct. Sud. 15; 4 tl; lib.
Dahanu 25-0 Road;	Varoti; 5-2; Wed.	Tawe; 1-0	W.	Cs.
Dahanu 26-0 Road;	Talawade; 2-0; ..	Talawade; 1-0	W.	Sl (pr); tl.
Dahanu 6-4 Road;	Ganjad; 6-0; Tue.	.. 2-4	W.	Sl (pr).
Dahanu 0-4 Road;	Dahanu 0-4; Daily.	Local; ..	W; pl.	4 Sl (2 pr, m, h); Cs.; 2 tl; Cch.
Dahanu 2-0 Road;	Local;	Local; ..	W; pl.	5 Sl (3 pr, m, h); 2 tl; mq; lib; 9 dp; Cch.
..
Dahanu 38-0 Road;	Udhwa; 2-0; Sun.	.. 1-4	W; rv.	Sl (pr); 2 Cs (1 fmg).
Dahanu 19-0 Road;	Varoti; 2-0; Wed.	Veti; 1-0	W.	Sl (pr); 2 Cs (1 fmg); 2tl.
Dahanu 10-6 Road;	Ganjad; 5-0; Tue.	Ganjad; 5-0	W.	2 Sl (pr); Cs; Cch.
Dahanu 3-0 Road;	Dahanu; 3-0; Daily.	.. 1-0	W.	Ch.
Dahanu 2-0 Road;	Dahanu; 2-0; Daily.	Stage; 0-1	W.	2Sl (pr,m,h);Cs., Ramnavami Fr. Ct. Sud. 9; dh; 3 tl; lib; dp; Cch.
Dahanu 16-0 Road;	Urse; 4-0; Mon.	Sarani; 1-0	W.	Sl (pr); 3 tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Nikane; DHN. निकणे	.. SE 16-0	2165; 1121; 194; 492	Local; ..
Nimbapur; DHN. निंबापूर	.. E 31-0	2903; 755; 187; 191	Bapgaon; 1-0
Osarvira; DHN. ओसरवीरा	.. E 23-0	3371; 1226; 189; 661	Ganjad; 12-0
Pale; DHN. पळे	.. SE 10-0	2027; 1367; 246; 379	Dahanu 7-0 Rd.;
Pardi; DHN. पाडी	.. NE 25-0	153; 155; 36; 108	Dhundal- 1-0 wadi;
Pavan; DHN. पावन	.. E 18-0	1112; 562; 114; 186	Bapgaon; 2-0
Peth; DHN. पेठ	.. SE 27-4	463; 353; 50; 182	Tawe; 3-4
Pimpalshet Bk.; DHN. पिंपलशेट बुद्रक	.. SE 23-0	2194; 648; 111; 222	Veti; 2-4
Pimpalshet Kh.; DHN. पिंपलशेट खुर्द	.. SE 15-0	693; 404; 64; 224	Nikne; 1-0
Punjave; DHN. पुंजावे	.. NE ..	323; 246; 43; 164	.. ..
Raipur; DHN. रायपूर	.. NE 52-0	1907; 906; 178; 356	Modgaon; 3-0
Raitali; DHN. रायतली	.. SE 10-0	2390; 1565; 285; 832	Ganjad; 1-0
Rankol; DHN. रनकोळ	.. SE 16-0	3118; 1681; 269; 1032	Vadhane; 5-0
Ranshet; DHN. रानशेत	.. E 14-0	2031; 1139; 184; 261	.. 1-4
Saiwan; DHN. सायबन	.. E 30-0	2210; 1485; 264; 402	Bapgaon; 4-0
Sakhare; DHN. साखरे	.. SE 12-0	2257; 1166; 216; 416	Vangaon; 3-0
Sarani; DHN. सारणी	.. SE 14-0	880; 720; 120; 331	Vadhane; 3-0
Saroli; DHN. सरोली	.. E 6-4	4661; 7163; 1355; 2383	Local; ..
Sasvand; DHN. सासवंद	.. NE ..	254; 146; 34; 39	.. ..
Sawte; DHN. सावटे	.. E ..	701; 712; 151; 201	Saroli; 2-0
Saye; DHN. सावे	.. SE 26-0	1377; 828; 135; 509	Nikne; ..
Shelti; DHN. शेलटी	.. SE 16-0	170; 131; 30; 48	Ganjad; 3-0
Shensari; DHN. शेनसरी	.. E 21-4	3109; 847; 146; 184	Bapgaon; 1-4
Shilonde; DHN. शिलोंदे	.. NE 39-0	2696; 903; 144; 378	Udhwa; 1-0
Shisne; DHN. शिस्ने	NE ..	2336; 1344; 218; 950	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Dahanu 14-0 Road;	Ganjad; 2-0; Tue.	Ganjad; 2-0	W.	Sl (pr); Cs; ch.
Dahanu 29-0 Road;	Saiwan; .. Tue.	Bapgaon; 1-0	W.	Sl (pr); tl.
Dahanu 20-0 Road;	Maha-lakshmi; 3-0; Sun.	.. 0-4	W.	Sl (pr); tl.
Vangaon; 3-0	Vangaon; 3-0; Sun.	Vangaon; 3-0	W.	2 Sl (pr); Cs; ch.
Dahanu 25-0 Road;	Dhunda-l-wadi; 1-0; Tue.	Dhunda-l-wadi; 1-4	W.	....
Dahanu 18-0 Road;	Varoti; 3-0; Wed.	.. 1-0	W.	Sl (pr); 2 Cs.
Dahanu 28-0 Road;	Varoti; 7-0; Wed.	Tawe; 3-4	W.	Sl (pr); Cs.
Dahanu 23-0 Road;	Varoti; 4-0; Wed.	Veti; 3-0	W.	Sl (pr); tl.
Dahanu 13-0 Road;	Ganjad; 3-0; Tue.	Local; ..	W.	Sl (pr); Cs.
..
Dahanu 52-0 Road;	Udhwa; .. Sun.	Shilonde; 4-0	W; rv.	Sl (pr); 2 Cs(1 fmg).
Dahanu 10-0 Road;	Ganjad; 1-0; Tue.	Ganjad; 1-0	W; rv.	Sl (pr).
Vangaon; 10-0	Ganjad; 2-0; Tue.	Local; ..	W.	Sl (pr); 2 tl; gym; ch.
Dahanu 14-0 Road;	Ganjad; .. Tue.	Local; ..	W.	2 Sl (pr); Cs.
Dahanu 30-0 Road;	Local; .. Tue.	Local; ..	W; n.	Sl (pr); dp.
Vangaon; 3-0	Vangaon; 3-0; Sun.	.. 1-0	W.	2 Sl (pr); Cs; tl; ch.
Dahanu 14-0 Road;	Varoti; 3-0; Wed.	Local; ..	W.	Sl (pr); 2 Cs; tl.
Dahanu 3-2 Road;	Ashagad; 2-0 Mon.	Local; ..	W; pl.	6 Sl (pr); Cs; 4 tl; mq; ch; lib; 3 dp.
Dahanu 5-0 Road;	Saroli; 2-0; Mon.	.. 1-0	W.	Sl (pr).
Dahanu 26-0 Road;	Urse; 2-0; Mon.	Sarani; 7-0	W.	Sl (pr); tl.
Dahanu 16-0 Road;	Ganjad; 3-0; Tue.	Local; ..	n.	....
Dahanu 21-4 Road;	Varoti; 5-1; Wed.	Bapgaon; 1-4	W.	Sl (pr); tl.
Dahanu 39-0 Road;	Udhwa; 1-0; Sun.	Stage; ..	W; rv.	2 Sl (pr); Cs (fmg).
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Sogwe; DHN. सोगवे	.. E 6-4	1230; 1017; 180; 310	Ashagad; 2-0
Sonale; DHN. सोनाळे	.. E 22-0	948; 366; 62; 192	Kasa Kh.; 1-0
Sukadamba; DHN. सुकडअंबा	.. E 37-0	2634; 687; 121; 265	.. ..
Talothe; DHN. तलोठे	.. NE ..	435; 363; 70; 98	.. ..
Tanashi; DHN. तनाशी	.. S 10-0	1488; 1123; 201; 406	Chinchani; 2-0
Tawe; DHN. तवे	.. SE 26-0	1271; 781; 134; 327	Local; ..
Urse; DHN. उरसे	.. SE 24-0	1423; 528; 80; 93	Nikne; 5-0
Vadade; DHN. वडदे	.. S 7-0	560; 162; 26; 79	Vangaon; 4-4
Vadhane; DHN. वधाने	.. SE 13-0	623; 640; 94; 260	Local; ..
Vaghadi; DHN. वाघाडी	.. E 17-0	1009; 818; 143; 449	Kasa Kh.; 1-0
Vadhavan; DHN. वाढवण	.. SW 5-0	832; 1241; 240; 416	Varor; 1-4
Vadkum; DHN. वडकुम	.. E 1-0	2154; 1688; 356; 361	Dahanu 0-1 Road;
Vanai; DHN. वणई	.. SE 13-0	2460; 1608; 317; 574	Gowane; 1-4
Vangaon; DHN. वाणगाव	.. SE 12-0	1295; 2652; 496; 706	Local;
Vangaije; DHN. वांगरजे	.. SE 21-0	3012; 1126; 190; 416	Tawe; 1-4
Vankas; DHN. वंकास	.. NE 32-0	2148; 1510; 281; 649	Dabchari; 2-0
Varkhande; DHN. वरखंडे	.. NE ..	398; 386; 49; 121	.. ..
Varor; DHN. वरोर	.. SW 6-0	1640; 2320; 494; 417	Local; ..
Varoti; DHN. वरोती	.. SE 19-0	500; 513; 108; 144	Kasa Kh.; 0-1
Vasgaon; DHN. वासगाव	.. S 5-0	852; 1010; 159; 290	Varor; 1-4
Veti; DHN. वेती	.. SE 20-0	1884; 1273; 237; 535	Local; ..
Vire; DHN. विरे	.. SE 18-0	387; 201; 44; 118	Vangaon; 1-0
Viwalwedhe; DHN. विवलवेढे	.. E 20-0	2668; 609; 108; 316	Charoti; 3-0
Vyahali; DHN. व्याहाळी	.. E 34-0	2715; 595; 112; 167	Balgaon; 10-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Dahanu 2-0 Road;	Ashagad; 2-0; Mon.	Dahanu 2-0 Rd;	W.	Sl (pr); tl.
Dahanu 19-0 Road;	Varoti; 2-0; Wed.	Kasa Kh; 1-0	W.	Sl (pr); Cs.
Dahanu 35-0 Road;	Saiwan; 5-0; Tue.	Saiwan; 5-0	W; n.	....
..
Vangaon; 6-0	Chinchani; 2-0; Daily.	Chinchani; 2-0	W.	2 Sl (pr); Cs; 2 tl.
Dahanu 26-0 Road;	Varoti; 5-0; Wed.	Local; ..	W.	Sl (pr); Cs; lib; dp.
Dahanu 24-0 Road;	Local; .. Mon.	Sarani; 5-0	W.	Sl (pr); tl.
Vangaon; 4-4	Vangaon; 4-4; Sun.	.. ..	W.	Sl (pr).
Dahanu 13-0 Road;	Ganjad; 2-0; Tue.	Local; ..	W.	Sl (pr); Cs.
Dahanu 17-0 Road;	Varoti; 1-0; Wed.	Local; ..	W.	Sl (pr); 2 Cs; 2 tl.
Dahanu 5-0 Road;	Dahanu Rd.; 5-0; Daily.	Varor; 1-4	W.	Sl (pr); Cs; Ct. Pournima Fr; 2 tl.
Dahanu 0-1 Road;	Dahanu Rd.; .. Daily.	Dahanu 0-1 Rd;	W.	Cs; tl.
Vangaon; 3-0	Vangaon; 3-0; Sun.	Gowane; 1-4	W.	Sl (pr); Cs.
Local; ..	Local; .. Sun.	Local; ..	W; pl.	4 Sl (2 pr, m, h); Cs; 1) Ramanaumi Fr. Ct. Sud. 9, (2) Hanuman Jayanti Fr. Ct. Sud. 15; 3 tl; lib; 2 dp. Sl (pr); Cs; tl.
Dahanu 21-0 Road;	Varoti; 2-0; Wed.	Varoti; 2-0	W.	Sl (pr); Cs; tl.
Dahanu 30-0 Road;	Dhundal- wadi; 5-0; Tue.	.. 2-4	W.	Sl (pr).
..
Dahanu 7-0 Road;	Dahanu; 6-0; Daily.	Local; ..	W.	2 Sl (pr); Cs; Fr. Ct. Sud. 15; 2tl; 2lib; 2dp. Cs; 2 tl; mq.
Dahanu 17-0 Road;	Local; .. Wed.	Local; ..	W.	.. ..
Vangaon; 6-0	Vangaon; 6-0; Sun.	Varor; 2-0	W.	Sl (pr); 2 tl.
Dahanu 18-0 Road;	Varoti; 1-0; Wed.	Local; ..	W.	Sl (pr); Cs; 2 tl.
Vangaon; 1-0	Vangaon; 1-0; Sun.	Vangaon; 1-0	W.	.. ..
Dahanu 18-0 Road;	Varoti; 3-4; Wed.	Local; ..	W.	Sl (pr); Cs; Fr. Ct. Sud. Pournima; 2 tl.
Dahanu 35-0 Road;	Saiwan; 5-0; Tue.	Saiwan; 5-0	W; n.	....

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Waki; DHN. वाकी	.. N 4-0	2310; 2440; 418; 803	Local; ..
JAWHAR TALUKA			
Adkhadak; JWR. आडखडक	.. N ..	431; 199; 50; 90	.. ..
Aine; JWR. आयने	.. S 12-0	2161; 241; 51; 91	Jawhar; 12-0
Akhar; JWR. आखर	.. S ..	548; 430; 82; 86	.. ..
Alonde; JWR. आलोंडे	.. SW 21-0	2778; 1462; 461; 437	Local; ..
Alyachimet; JWR. आळघाचिमेत	.. N ..	850; 345; 62; 213	.. ..
Ambeghar (Balapur); JWR. अंबेघर बाळापूर	.. SW 17-0	563; 509; 92; 132	Vikram- gad; 1-0
Ambeghar T. Dharampur; JWR. अंबेघर धरमपूर	.. W 18-0	893; 496; 86; 87	.. 2-0
Andhari; JWR. अंधारी	.. S 15-0	996; 244; 39; 129	Jawhar; 15-0
Aptale; JWR. आपटाले	.. E 3-4	2502; 1255; 245; 416	Jawhar; 3-4
Apti Bk.; JWR. आपटी बुदुक	.. SW 22-0	1084; 486; 98; 256	Bandhan; 2-0
Apti Kh.; JWR. आपटी खुर्द	.. S 25-0	530; 268; 47; 82	Male; 2-0
Balapur; JWR. बालापूर	.. S 20-0	2417; 993; 163; 354	Vikram- gad.; 3-0
Bandhan; JWR. बांधन	.. SW 19-0	1170; 625; 107; 241	Local; ..
Baste; JWR. बास्ते	.. S 20-0	840; 385; 66; 67	Malwade; 2-0
Bharsatmet; JWR. भरसटमेत	.. N 3-0	604; 333; 58; 121	Jamsar; ..2-0
Bhuritek; JWR. भुरीटेक	.. SE 22-0	1402; 465; 97; 202	Pathardi; 1-0
Borale; JWR. बोराले	.. N 7-0	2191; 852; 174; 277	Jamsar; 1-4
Chambharshet; JWR. चामारशेट	.. W 17-0	1974; 960; 189; 337	Jawhar; 17-0
Chauk; JWR. चौक	.. S 8-0	2525; 699; 126; 274	Jawhar; 8-0
Chinchghar; JWR. चिंचघर	.. SW 22-0	1144; 645; 118; 333	Bandhan; 2-0
Dadade; JWR. दादडे	.. SW 23-0	3986; 2148; 420; 890	Local; ..
Dehare; JWR. देहरे	.. NW 14-0	2831; 1614; 299; 617	Jawhar; 14-0
Deherje; JWR. देहरजे	.. SW 20-0	1727; 761; 137; 229	Bandhan; 1-0
Dhamani; JWR. धामणी	.. W ..	1820; 447; 77; 121	Sawa; 3-0
Dhanoshi; JWR. धानोशी	.. S 2-2	859; 419; 88; 163	Jawhar; 2-2

Railway Station; Distance 5		Weekly Bazar; Distance; Bazar Day 6		Motor Stand; Distance 7		Drinking Water facilities 8	Institutions and other information 9
Dahanu Road;	4-0	Dahanu;	.. Daily.	Local;	..	W.	Sl (pr); ch.
..
Dahanu Road;	46-0	Walwande;	4-0; Tue.	Wal- Wande;	4-0	W.	Sl (pr).
..
..	..	Vikramgad;	5-0; Wed.	Local;	..	W.	Sl (pr); tl.
..
Dahanu Road;	25-0	Vikramgad;	1-0; Wed.	..	2-0	W.	Sl (pr).
Dahanu Road;	22-0	Talawade;	2-4; Mon.	Talawade;	2-4	rv.	Sl (pr); tl.
Palghar;	40-0	..	..	..	4-0	W.	Sl (pr); tl.
Dahanu Road;	43-4	Jawhar;	3-4; Fri.	..	0-2	W.	2 Sl (2 pr); Cs; 2 tl; ch.
Palghar;	27-0	Local;	.. Tue.	..	1-0	W.	Sl (pr); tl.
Palghar;	..	Vasuri;	2-0; Sun.	Stage;	..	W.	Sl (pr).
Dahanu Road;	28-0	Vikramgad;	3-0; Wed.	..	..	W.	Sl (pr); tl.
Palghar;	20-2	Apti Bk.;	2-0; Tue.	Local;	..	W.	Sl (pr); dp.
Palghar;	38-0	Vikramgad;	8-0; Wed.	..	..	W.	Sl (pr).
Dahanu Road;	41-0	Jawhar;	3-0; Fri.	..	0-1	W.	Sl (pr); Akshay Tritiya, Fr. Vsk.; tl.
Kasara;	25-0	Khodale;	5-0; Sat.	Khodale;	5-0	W; rv.	Sl (pr); tl.
Dahanu Road;	45-0	Vinval;	2-0; Mon.	..	..	W.	Sl (pr).
Dahanu Road;	28-0	Talawali;	3-0; Thu.	Talawali;	3-0	W.	Sl (pr.).
Dahanu Road;	55-0	Walwande;	1-0; Tue.	Wal- wande;	1-0	W.	Sl (pr).
..	..	Apti Bk.;	2-0; Tue.	Stage;	..	W.	Sl (pr); tl.
Dahanu Road;	..	Local;	.. Mon.	Local;	..	W.	2 Sl (2 pr); tl; lib.
Dahanu Road;	52-0	Wadoli;	2-0; Sun.	Wadoli;	2-0	W.	3 Sl (3 pr); Cs; tl.
Palghar;	20-0	Vikramgad;	4-0; Wed.	..	..	W.	Sl (pr); tl.
Dahanu Road;	26-0	Talawali;	4-0; Thu.	Sawa;	3-0	W.	Sl (pr); Cs; tl.
Dahanu Road;	65-0	Jawhar;	2-0; Fri.	..	0-1	W.	Sl (pr); tl; ch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Dolhari Bk.; JWR. डोल्हारी बुद्रुक ..	SW 21-0	2595; 1383; 248; 405	Dadade; 2-0
Dolhari Kh.; JWR. डोल्हारी खुर्द ..	SW 20-0	1103; 881; 149; 520	Dadade; 4-0
Dengachimet; JWR. डेंगाचीमेट ..	W 8-0	1620; 787; 138; 415	Jawhar; 8-0
Gadadhe; JWR. गडधे ..	SW 18-0	498; 294; 62; 82	Vikram- gad; 1-4
Garadwadi; JWR. गरदवाडी ..	W 4-0	1974; 352; 79; 164	Jawhar; 4-0
Gorthan; JWR. गोरठाण ..	N 3-4	1798; 1014; 180; 304	Jamsar; 1-0
Hade; JWR. हाडे ..	W 5-0	1896; 696; 118; 139	Jawhar; 5-0
Hatane; JWR. हातणे ..	SW 22-0	614; 224; 33; 53	.. ..
Hateri; JWR. हातेरी ..	N 12-0	3426; 1045; 194; 381	.. ..
Hirad-Pada; JWR. हीरडपाडा ..	N 6-5	2085; 1304; 256; 911	Jamsar; 1-0
Jambhe; JWR. जांभे ..	SW 13-0	3315; 794; 139; 274	Vikram- gad; 3-0
Jamsar; JWR. जामसर ..	N 4-6	2325; 1315; 271; 725	Local; ..
Jawhar (Rural Area); JWR. जव्हार ग्रामीण विभाग ..	N ..	4775; 1487; 285; 402	Local; ..
Jawhar (Urban Area XIII); जव्हार भागरी विभाग १३ ..	N ..	9,07; 6,110; 1,231; 461	.. ..
Juni Jawhar; JWR. जुनी जव्हार ..	SW ..	1721; 229; 51; 101	.. ..
Kadachimet; JWR. कडाचीमेट ..	S 3-4	1002; 361; 71; 219	Jawhar; 3-4
Kalamvihira; JWR. कळमविहीरा ..	SW 6-0	530; 279; 49; 80	Jawhar; 6-0
Kardhan; JWR. करडण ..	W 8-0	926; 452; 85; 137	Jawhar; 8-0
Karhe; JWR. कऱ्हे ..	W 11-0	2765; 1216; 215; 520	Jawhar; 11-0
Kasatwadi Bk.; JWR. कासटवाडी ..	W 5-0	2114; 704; 116; 200	Jawhar; 5-0
Kasa Bk.; JWR. कासा बुद्रुक ..	W 15-0	1925; 927; 190; 355	Talwade; 1-4
Kashiwali; JWR. कशिवली ..	S 24-0	674; 493; 93; 281	Male; 1-0
Kashiwali Tarf Alonde; JWR. कशिवली तर्फ अलंडे ..	S 6-4	1664; 202; 30; 103	Jawhar; 6-4

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Dahanu 5-0	.. ..	.. ..	W.	Sl (pr).
Dahanu Road; 25-0	Dadade; 2-0; Mon.	.. ..	W.	Sl (pr); tl.
Dahanu Road; 30-0	Talawali; 4-0; Thu.	Stage; ..	W.	Sl (pr); tl; ch.
Dahanu Road; Palghar; 40-0	Vikramgad; 1-4; Wed.	.. ..	W.	Sl (pr).
Dahanu Road; 30-0	Jawhar; 4-0; Fri.	.. 2-0	W.	Sl (pr); Bohade Fr; tl.
Dahanu Road; 42-4	Jawhar; 3-4; Fri.	.. 1-4	W.	Sl (pr); Pyt; 2 tl; ch.
Dahanu Road; 29-0	Jawhar; 6-0; Fri.	Jawhar; 5-0	W; rv.	Sl (pr); tl; ch.
.. ..	.. ..	.. ..	W.	Sl (pr).
.. ..	.. ..	.. ..	W.	Sl (pr).
Dahanu Road; Palghar; 44-0	Jawhar; 6-5; Fri.	.. 0-5	W.	Sl (pr); tl.
.. ..	Vikramgad; 3-0; Wed.	.. ..	W.	Sl (pr).
Dahanu Road; 44-0	Jawhar; 4-6; Fri.	Local; ..	W.	Sl (pr); tl.
Dahanu Road; 42-0	Local; Fri.	Local; ..	pl.	4 Sl (2 pr, m, h); 3 Cs, Dasara Fr. An. Sud.10; 7tl;dh;mq;ch;2lib;5dp.
..
..
Dahanu Road; 41-0	Jawhar; 3-4; Fri.	.. 1-0	W.	Sl (pr); tl.
Dahanu Road; 35-0	Talawali; 5-0; Mon.	.. 1-0	W.	Sl (pr); tl.
Dahanu Road; 30-0	Talawali; 4-0; Thu.	.. 2-0	W.	Sl (pr); 2 tl.
Dahanu Road; 27-0	Talawali; 1-0; Thu.	Local; ..	W.	Sl (pr); tl.
Dahanu Road; 38-0	Jawhar; 5-0; Fri.	.. ..	W.	Sl (pr); Mahashivaratri Fr. Mg.; 2 tl.
Dahanu Road; 22-0	Talwade; 1-4; Mon.	Local; ..	W.	Sl (pr); tl.
Dahanu Road; Palghar; ..	Vasuri; 2-0; Sun.	.. ..	W.	Sl (pr).
Dahanu Road; 33-0	Walwande; 5-0; Tue.	.. 0-2	W.	Sl (pr); tl; ch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kaulale; JWR. कौलाले	.. SE 8-0	5335; 1988; 392; 1066	Nyahale 2-0 Kh.;
Kawadas; JWR. कवडास	.. W 20-0	557; 537; 98; 95	Talawade; 2-0
Kawale; JWR. कावळे	.. S 33-0	938; 359; 70; 108	Male; 1-0
Kelghar; JWR. केळघर	.. E 9-0	1656; 790; 181; 270	Jawhar; 9-0
Kegva; JWR. केगवा	.. SW 22-0	2255; 660; 116; 367	Dadade; 1-4
Khadaki; JWR. खडकी	.. W 22-0	1558; 1061; 197; 334	Talawade; 3-0
Khadkhad; JWR. खडखड	.. N 6-0	2522; 1331; 263; 827	Jamsar; 2-0
Khand; JWR. खांड	.. SW 17-0	901; 807; 151; 480	Vikram- gad; 2-0
Khandeghar; JWR. खांडेघर	.. SE 21-0	606; 225; 41; 134	Bandhan; 2-0
Kharonda; JWR. खरोंडा	.. NW 17-0	4403; 913; 154; 274	Sawa; 5-0
Khidse; JWR. खिडसे	.. S 12-6	1491; 162; 28; 56	Jawhar; 12-6
Khoste; JWR. खोस्ते	.. S 22-0	2139; 1098; 201; 457	Malwade; 1-0
Khuded; JWR. खुडेद	.. SW 11-0	3903; 1596; 305; 672	Jawhar; 5-0
Kunj; JWR. कुंज	.. W 24-0	2909; 637; 149; 272	Sawa; 3-0
Kunzre; JWR. कुंझरे	.. SW 25-0	4066; 2093; 313; 730	Bandhan; 5-0
Kutarvihir; JWR. कुतरविहीर	.. N 1-7	913; 209; 35; 92	Jamsar; 1-7
Male; JWR. माळे	.. S 23-0	1015; 433; 74; 190	Local; ..
Malwade; JWR. मलवाडे	.. S 18-0	2686; 1387; 237; 681	Local; ..
Man; JWR. मान	.. SW ..	627; 435; 64; 121	.. ..
Manmohadi; JWR. मनमोहाडी	.. SE 12-0	512; 127; 26; 51	Jawhar; 12-0
Medhe; JWR. मेढे	.. S 11-0	1213; 164; 32; 66	Jawhar; 11-0
Medhi; JWR. मेढी	.. W 17-0	1971; 548; 117; 252	Dadade; 2-4
Moho Bk.; JWR. मोहो बुद्रुक	.. SW 20-0	1138; 477; 97; 284	Londe; 1-0
Moho Kh.; JWR. मोहो खुदे	.. SW 24-0	1043; 541; 94; 282	Alonde; 2-0
Nagzari; JWR. नागझरी	.. SW ..	161; 130; 22; 38	.. ..

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Dahanu Road; 45-0	Nyahale Kh.; 3-0; Sat.	Nyahale Kh.; 2-0	W.	Sl (pr); tl; ch.
Dahanu Road; 18-0	Talawade; 2-0; Mon.	Stage; ..	..	Sl (pr); tl.
Palghar; 40-0	Vasuri; 3-0; Sun.	Vasuri; 3-0	W; rv.	Sl (pr); Cs; Hanuman Jayanti Fr. Ct. Sud, 15; tl.
Dahanu Road; 50-0	Nyahale Kh.; 2-0; Sat.	.. ..	W.	Sl (pr); tl.
Dahanu Road; 25-0	Dadade; 1-4; Mon.	.. ..	W.	Sl (pr).
Dahanu Road; 23-0	Talawade; 3-0; Mon.	Stage; ..	W.	Sl (pr).
Dahanu Road; 44-0	Jawhar; 6-0; Fri.	Jamsar; 2-0	W.	Sl (pr).
Palghar; ..	Vikramgad; 2-0; Wed.	.. ..	W.	Sl (pr).
Palghar; 24-0	Apti Bk.; 3-0; Tue.	.. ..	W.	Sl (pr); tl.
Dahanu Road; 29-0	Talawali; 5-0; Thu.	Sawa; 5-0	W.	Sl (pr); tl; ch.
Dahanu Road; 52-0	Walwande; 6-6; Tue.	Walwande; 6-6	W.	Sl (pr) tl.
Palghar; 40-0	Vikramgad; 6-0; Wed.	.. ..	W.	2 Sl (2 pr); 2 tl; 2 Cch.
..	Vikramgad; 5-0; Wed.	.. ..	W.	Sl (pr).
Dahanu Road; 18-0	Talawali; 3-0; Thu.	.. ..	W.	Sl (pr).
Palghar; 27-0	Apti Bk.; 3-0; Tue.	.. ..	W.	5 Sl (pr); Hanuman Jayanti Fr. Ct. Pour-nima; tl.
Dahanu Road; 40-0	Jawhar; 2-0; Fri.	.. ..	W.	Sl (pr); tl.
Palghar; 22-0	Vasuri; 2-0; Sun.	.. ..	W.	Sl (pr); tl.
Dahanu Road; 42-0	Vikramgad; 6-0; Wed.	Local; ..	W; rv.	5 Sl (pr); 2 Cs; 3 tl.
..
Dahanu Road; 50-0	Jawhar; 12-0; Fri.	Jawhar; 12-0	rv.	Sl (pr).
Dahanu Road; 50-0	Walwande; 4-0; Tue.	Walwande; 4-0	W.	Sl (pr); lib.
Dahanu Road; 25-0	Vikramgad; 2-4; Wed.	.. ..	W.	Sl (pr).
Palghar; 20-0	Vasuri; 1-0; Sun.	.. ..	W.	Sl (pr); tl.
Palghar; 38-0	Vasuri; 2-0; Sun.	Vasuri; 2-0	W.	Sl (pr); tl.
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Nandgaon; JWR. नांदगाव ..	SE 17-0	4671; 1423; 302; 297	Palsunde; 7-0
Nyahale Bk.; JWR. न्याहाळे बुद्रुक ..	NE 11-0	5796; 2688; 522; 1175	Jawhar; 11-0
Nyahale Kh.; JWR. न्याहाळे खुर्द ..	E 7-2	2195; 1547; 345; 647	Jawhar; 7-2
Onde; JWR. ओंदे ..	SW 18-0	1573; 561; 126; 244	Vikramgad; 2-0
Pathardi; JWR. पाथर्डी ..	S 6-0	4732; 1122; 215; 212	Jawhar; 6-0
Pimpalshet; JWR. पिंपळशेत ..	W 18-0	1341; 657; 123; 219	Sawa; 6-0
Potakhal; JWR. पोदखळ ..	S 22-0	819; 471; 82; 201	.. 4-0
Pochade; JWR. पोचाडे ..	S 14-0	970; 526; 96; 215	.. ..
Raitali; JWR. रायताली ..	NE 6-0	2117; 808; 173; 332	Jawhar; 6-0
Sajan; JWR. साजन ..	SW ..	915; 225; 38; 98	.. ..
Sakhare; JWR. साखरे ..	S 10-0	3618; 1435; 267; 648	Malwade; 5-0
Sakur; JWR. साकूर ..	S 4-0	779; 422; 85; 77	Jawhar; 4-0
Sarsoon; JWR. सारसून ..	N 9-0	5013; 1691; 294; 883	Jawhar; 9-0
Satkor; JWR. सातकोर ..	SW 19-0	1075; 644; 121; 159	Dadade; 3-0
Sawade; JWR. सवादे ..	SE 18-0	1869; 1194; 242; 741	.. 3-0
Selpada; JWR. सेलपाडा ..	S 23-0	322; 420; 71; 98	Malwade; 1-1
Shevate; JWR. शेवते ..	SW 16-0	2696; 579; 96; 215	Vikram- gad; 3-0
Shil; JWR. शीळ ..	SW 19-0	920; 217; 40; 77	Londe; 2-0
Shiroshi; JWR. शिरोशी ..	SW 9-0	1403; 457; 80; 198	Jawhar; 10-0
Suksale; JWR. सुकसाळे ..	SW 15-0	1007; 653; 138; 384	.. 1-0
Sarshi; JWR. सारशी ..	W 18-0	1935; 1168; 229; 602	Talawade; 2-0
Sawa; JWR. सावा ..	W 14-0	3834; 1334; 228; 384	Local; ..
Talawade; JWR. तळवाडे ..	W ..	1610; 1486; 289; 427	Local; ..
Talawali Tarf Dengachimet; JWR. तलावली तर्फ डेंगाचीमेट ..	SW 24-0	1590; 696; 117; 269	Bandhan; 4-0
Talawali Tarf Satkar; JWR. तलावली तर्फ सातकर ..	W 12-0	908; 811; 123; 519	Jawhar; 12-0
Tembholi; JWR. टेंभोळी ..	S ..	938; 174; 34; 85	.. ..
Tetawali; JWR. टेदवाळी ..	SW 18-0	764; 555; 84; 233	Vikram- gad; 3-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Dahanu Road; 52-0	Nyahale; 7-0; Sat.	Local; ..	W.	Sl (pr); Cs; tl.
Dahanu Road; 55-0	Nyahale Kh.; .. Sat.	.. 4-0	W; n.	2Sl (pr), Cs; Jagdamba Fr. Phg. Vad. 5; 2 tl.
Dahanu Road; 47-0	Local; .. Sat.	Local; ..	W.	Sl (pr); tl.
Palghar; ..	Vikramgad; 2-0; Wed.	Stage; ..	W.	Sl (pr); tl.
Dahanu Road; ..	Jawhar; 6-0; Fri.	Local; ..	W, t.	2 Sl (pr); 2 Cs; tl.
Dahanu Road; 32-0	Talawali; 6-0; Thu.	Talawali; 6-0	W; rv.	Sl (pr); tl; ch.
Palghar; 35-0	Vasuri; 4-0; Sun.	.. ..	W.	2 Sl (pr).
.. ..	.. ..	.. ..	W.	Sl (pr).
Dahanu Road; 50-0	Local; .. Sat.	.. 0-5	W; n.	Sl (pr); Devi Fr. May; tl.
..
.. ..	Vikramgad; .. Wed.	.. ..	W.	2 Sl (2 pr); tl.
Dahanu Road; 42-0	Jawhar; 4-0; Fri.	Local; ..	W.	Sl (pr); Jagadmba Fr. Ct. Vsk; 2 tl.
Dahanu Road; 36-0	Wadoli; .. ..	.. ..	..	....
Palghar; 20-2	Dadade; 3-0; Mon.	.. ..	W.	Sl (pr).
.. ..	.. ..	.. ..	W.	Sl (pr).
Dahanu Road; 42-0	.. ..	.. ..	W.	Sl (pr).
Dahanu Road; 25-0	Vikramgad; 3-0; Wed.	.. ..	W.	Sl (pr); tl.
Palghar; 30-0	Vikramgad; 3-0; Wed.	Zadapoli; 1-0	W.	Sl (pr); tl.
Dahanu Road; 38-0	Walawande; 2-0; Tue.	Walawande; 2-0	W; rv.	Sl (pr); tl.
.. ..	.. 1-0; ..	.. ..	W.	Sl (pr); tl.
Dahanu Road; 20-0	Talawade; 2-0; Mon.	Talawade; 2-0	W; n.	Sl (pr).
Dahanu Road; 22-0	Talawali; 2-0; Thu.	Local; ..	W; rv.	Sl (pr); 2 Cs; tl; ch; lib.
Dahanu Road; 20-0	Local; .. Mon.	Local; ..	..	tl; dp.
Palghar; ..	.. ..	.. 2-0	W.	Sl (pr); tl.
Dahanu Road; 26-0	Local; .. Thu.	Local; ..	W.	Sl (pr); tl.
..
Palghar; 24-0	Vikramgad; 3-0; Wed.	.. ..	W.	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Therunde; JWR. थेरुंदे ..	W 20-4	470; 555; 91; 120	Talawade; 2-0
Tilonde; JWR. तिलोडे ..	W 16-0	3353; 1191; 196; 350	Sawa; 2-0
Uparale; JWR. उपराळ ..	SW 19-0	792; 631; 122; 163	Bandhan; 1-0
Utawali; JWR. उटावळी ..	S 23-0	1519; 889; 163; 336	Male; 4-0
Vasuri; JWR. वसुरी ..	SW 23-0	1330; 735; 149; 226	Male; 1-0
Vikramgad; JWR. विक्रमगड ..	SW 16-0	2746; 3366; 641; 819	Local; ..
Wadoli; JWR. वडोली ..	N 9-0	1023; 618; 125; 136	Jawhar; 9-0
Waki; JWR. वाकी ..	S 13-0	1908; 725; 133; 440	Malwade; 3-0
Walwande; JWR. वालवडे ..	S 7-0	1949; 867; 176; 522	Jawhar; 7-0
Wehlpada; JWR. वेहेळपाडा ..	SW 14-0	6271; 1397; 230; 467	Dadade; 3-0
Winwal; JWR. विनवल ..	N 5-0	1899; 972; 204; 510	.. 2-0
Zadapoli; JWR. झडपोळी ..	SW 19-0	455; 230; 41; 102	Alonde; 2-0
Zap.; JWR. झाप ..	SE ..	4270; 1218; 244; 576	.. ..
KALYAN TALUKA			
Adivali; KLN. आडिवळी ..	NE ..	876; 121; 28; 43	.. 11-00
Ambivali Bk; KLN. आंबिवली बुद्रक ..	NE ..	653; 697; 102; 81	.. ..
Ambivali Tarf Vasundri; KLN. आंबिवली तर्फ वासुंद्री ..	NE 5-0	372; 65; 11; 26	Mohane; 1-0
Ankhar; KLN. अन्खार ..	NE ..	565; 277; 51; 139	.. ..
Antade; KLN. अंताडे ..	E 22-0	285; 97; 18; 53	Rayate; 10-0
Antarli; KLN. अंताली ..	S ..	304; 178; 38; 42	Mangrul; 4-0
Ane; KLN. आणे ..	E ..	697; 336; 60; 79	Rayate; 2-0
Apti T. Barhe; KLN. आपटी तर्फ बारहे ..	E 17-0	490; 361; 56; 192	.. 41
Apti T. Chon; KLN. आपटी तर्फ चोण ..	E ..	449; 379; 72; 177	.. 4-0
Arele; KLN. अरेळे ..	NE ..	625; 21; 2; 11	.. ..
Asdegolavali; KLN. असदे गोळवली ..	S ..	809; 2204; 432; 166	Dwarli; 2-0
Atali; KLN. आटाळी ..	NE 5-0	374; 2,560; 557; 87	.. ..
Ayare; KLN. आयरे ..	SW 6-0	420; 3,075; 653; 108	Dombivali; 0-5
Balyani; KLN. बल्याणी ..	NE 6-0	527; 519; 94; 166	Mohane; 2-0
Bapsai; KLN. बापसई ..	NE ..	1554; 812; 146; 274	.. 4-0
Barave; KLN. बारवे ..	NE ..	801; 1,271; 216; 174	Kalyan; 0-6

Railway Station; Distance		Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5		6	7	8	9
Dahanu Road;	20-0	Talawade; 2-0; Mon.	Stage; ..	W; rv.	SI (pr).
Dahanu Road;	24-0	Talawali; 5-0; Thu.	Sawa; 2-0	W; rv.	SI (pr); 2 tl.
Palghar;	10-0	Apti Bk.; 1-0; Tue.	Local ..	W.	tl.
Palghar;	35-0	Vasuri; 3-0; Sun.	..	W.	SI (pr).
Thane;	42-0	Local; .. Sun.	Local; ..	W.	SI (pr); 2 tl.
Palghar;	..	Local; .. Wed.	Local; ..	W.	2S l(pr,h); 7Cs; 2tl; 2dp (1 vet).
Dahanu Road;	36-0	Local; .. Sun.	Stage; ..	W.	SI (pr); Gaondevi Fr. November; 2 tl.
..	..	.. ..	Local; ..	W; rv.	SI (pr).
Dahanu Road;	..	Local; .. Tue.	.. 0-2	W.	SI (pr).
Dahanu Road;	25-0	Dadade; 3-0; Mon.	.. ..	W.	SI (pr); tl.
..	..	Local; .. Mon.	Local; ..	W.	SI (pr); Fr. In the month of Ct, Vsk.
Palghar;	..	Vikramgad; 3-0; Wed.	.. ..	W.	SI (pr); tl.
..
Kalyan;	23-0	.. .. Thu.	Mamnoli; 6-0	W; rv.	SI (pr); Cs.
..
Ambivali; Local;	..	Kalyan;	Mohane; 1-0	..	SI (pr).
..
Kalyan;	22-0	Kalyan; 22-0; ..	Dahagaon; 5-0	W.	....
Dombivali; 6-0	..	Kalyan; 8-0; Thu.	.. 1-0	..	....
Kalyan;	10-0	Kalyan; 10-0; ..	.. ..	W.	SI (pr).
..	9-0	.. ..	.. 1-0	W; rv.	SI (pr); tl.
..	9-0	.. ..	.. 1-0	W; rv.	SI (pr); tl.
..
Kalyan;	3-0	Kalyan; 3-0; Thu.	.. 1-0	Pl.	SI (pr); 2 tl.
Ambivali; ..	..	.. ..	Mohane; 2-0	Pl.	SI (pr); tl.
Dombivali; 0-5	..	Kalyan; 6-0; ..	Dombivali; 0-5	W; Pl	SI (pr); 2 tl; gym.
Titwala; 1-0	..	.. ..	.. ..	W.	SI (pr); mq.; dp; tl.
Kalyan;	18-0	Kalyan; 18-0; Thu.	.. 1-0	W.	SI (pr); Cs; tl; dp.
Kalyan;	0-6	Kalyan; 0-6; Thu.	Kalyan; 0-6	W.	SI (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Bere; KLN. बरे ..	NE ..	928; 191; 31; 75	Khandawali; 2-0
Bhisol; KLN. भिसोळ ..	E ..	342; 494; 74; 137	Ramane; 3-0
Bhopar; KLN. भोपर ..	SW ..	1048; 1,252; 224; 164	Dombivali; 2-0
Chavare; KLN. चवरे ..	E ..	2557; 800; 143; 416	Rayate; 8-0
Chikanghar (1) KLN. चिकणघर (१) ..	E ..	715; 6,506; 1380; 148	.. ..
Chikanghar (2) KLN. Included in Urban Area XVII चिकणघर (२) नागरी विभाग XVII मध्ये समाविष्ट ..	E ..	.. ..	.. ..
Chinchavali Tarf Vasundri; KLN. ..	NE 11-0	198; 427; 77; 119	Khadawli; 2-0
चिचवली तर्फ वासुंद्री			
Chole; KLN. चोळे ..	SW 1-4	2,184; 5,673; 1,182; 206	.. 0-4
Dahagaon; KLN. दहागाव ..	E ..	853; 553; 96; 259	Kalyan; 10-0
Dahivali Tarf Vasundri; KLN. ..	NE ..	1,208; 415; 60; 148	Kalyan; 23-0
दहीवली तर्फ वासुंद्री			
Danbav; KLN. दानबाव ..	NE 14-0	1,098; 413; 53; 110	Khadavali; 2-0
Davadi; KLN. दावडी ..	S 4-0	648; 381; 60; 142	Dwarli; 2-0
Dombivli (Rural); KLN. डोंबिवली ग्रामीण ..	SW ..	374; 750; 129; 59	.. ..
Dombivli (Urban area XVIII); KLN. ..	SW ..	2,33; 51,108; 11,697; 83	.. ..
डोंबिवली नागरी विभाग XVIII			
Gajabandhan Patharli; KLN. ..	SW ..	371; 3,655; 367; 50	.. ..
गजबंदन पाथर्ली			
Galegaon; KLN. गाळेगाव ..	NE 4-0	295; 2,438; 641; 79	Mohane; ..
Gandhare; KLN. गंधारे ..	N ..	316; 374; 62; 70	Kalyan; 2-0
Gerse; गेरसे ..	NE 20-0	733; 398; 76; 200	Vasind; 2-0
Gharivali; KLN. घारीवली ..	SW ..	199; 536; 85; 14	Manpada; 1-0
Ghesar; KLN. घेसर ..	SW ..	440; 216; 38; 87	Nilje; 0-2
Ghotsai; KLN. घोटसई ..	NE 10-0	990; 1,455; 243; 323	Majgaon; 2½
Goveli; KLN. गोवेली ..	E ..	682; 556; 82; 146	Rayate; 2-0
Guravali; KLN. गुरवली ..	NE ..	1005; 802; 151; 174	Khadawali; 2-0
Hedutane; KLN. हेदुतणे ..	W ..	995; 1,340; 154; 372	Dombivali; 5-0
Jambhulmohili; KLN. जांभुळ मोहिली ..	SE ..	745; 1,059; 204; 182	Badlapur; 3-0
Ju; KLN. जु ..	NE 15-0	183; 17; 6; 10	Khadawali; 1-0
Kachore; KLN. कचोरे ..	S 4½	258; 988; 199; 30	Kalyan; 0-4½
Kalyan (Urban Area XVII); कल्याण नागरी विभाग XVII ..	HQ ..	7,64; 99,547; 19,988; 340	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Khadawali; 2-0	Padghe; 3-0; ..	.. ..	W; rv.	....
Kalyan; 11-0	Kalyan; 11-0; ..	Ramane; 3-0	W; rv.	SI (pr); tl.
Dombivali; 2-0	Kalyan; 8-0; Thu.	Manpada; 1-2	W.	SI (pr); Vsk. Sud. 13; gym; 3tl.
Kalyan; 23-0	Kalyan; 23-0; ..	Dahagaon; 8-0	W.	SI (pr).
..
..
Khadawali; 2-0	.. 11-0; ..	.. 5-0	W; pl.	SI (pr).
Local; ..	Kalyan; 1-0; ..	.. ..	Pl.	2 SI (pr); 3tl; gym; 2ch; 3 dp.
Kalyan; 20-0	Kalyan; 20-0; ..	Stage; ..	W; pl.	SI (pr).
Kalyan; 23-0	.. ..	Mamnoli; 5-0	W; rv.	SI (pr); Ct. Sud. Pour-nima; tl.
Khadawali; 2-0	.. ..	.. ..	W; t.	SI (pr); tl.
Kalyan; 4-0	Kalyan; 4-0; Thu.	.. 2-0	W.	SI (pr); tl.
..
..
..
Ambivali; ..	Kalyan;	Local; ..	Pl.	SI (pr, h).
Kalyan; 2-0	Kalyan; 2-0; Thu.	.. ..	W.	SI (pr).
Vasind; 2-0	Padghe; 8-0; Sun.	Vasind; 2-0	W.	SI (pr); 2 tl.
Dombivali; 5-0	Kalyan; 8-0; Thu.	.. ..	W.	SI (pr); Hanuman Jayanti Ct. Sud. 15; 2 tl.
Dombivali; 6-0	Dombivali;	Katai; ..	W.	SI (pr); tl.
Titwala; 2-5	.. ..	.. 1-5	W; pl.	SI (pr); Cs; Fr. Phg. Vad. 10; 4tl.
Kalyan; 15-0	.. ..	Local; ..	W; t.	SI (pr); tl.
Khadawali; 2-0	Titwala; 1-5; ..	Titwala; 1-5	W.	SI (pr); Cs; Hanuman Jayanti Ct. Sud. 15; 4tl.
Dombivali; 5-0	Dombivali; 5-0; Daily.	Katai; 3-0	W.	SI (pr); Gokul Ashtami Srn. Vad. 8; tl.
.. ..	.. ..	.. 0- $\frac{1}{2}$	Pl.	SI (pr); Cs; tl; 2gym; ch.
Khadawali; 1-0	Padghe; .. ..	.. 4-0	W; rv.	....
Kalyan; 0-4 $\frac{1}{2}$	Kalyan; 0-4; Thu.	.. 0-2	W.	SI (pr).
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kambe; KLN. कांबे ..	E 5-0	1816; 1908; 312; 540	.. ..
Katai; KLN. कताई ..	SW 9-0	261; 605; 106; 103	Nilaje; ..
Katemanivali (1) Included in urban area XXI of Ulhasnagar Tahsil; KLN. काटेमानिवळी. उल्हासनगर नागरी विभाग XXI मध्ये समाविष्ट	....	.. .. ..	Local; ..
Katemanivali (2) Urban Area XX; KLN. काटेमानिवळी (२) नागरी विभाग XX.	SE ..	2-36; 9,647; 2,036; 233	.. ..
Kelni; KLN. केळणी ..	E ..	586; 283; 61; 124	Kalyan; 20-0
Khadegolavali (1) KLN. खडेगोळवली (१)	SE 2-0	301; 401; 77; 80	Vithalwadi; 0-2
Khadegolavali (2) KLN. Included in Urban Area XXI of Ulhasnagar Tahsil. खडेगोळवळी, उल्हासनगर नागरी विभाग XXI मध्ये समाविष्ट	.. ..	.. .. ..	.. ..
Khadavali; KLN. खडवली ..	NE 14-0	650; 635; 122; 163	Local; ..
Khoni; KLN. खोणी ..	S 7-0	691; 803; 125; 334	Mangrul; 3-0
Kole; KLN. कोळे ..	SW ..	412; 610; 105; 80	Nilaje; 0-1
Kolimb; KLN. कोळींब ..	NE ..	757; 147; 30; 43	Rayate; 4-0
Kolivali; KLN. कोळीवली ..	N 2-4	798; 351; 47; 145	Kalyan; 2-4
Kopar; KLN. कोपर ..	SW 5-0	201; 819; 171; 47	Dombivali; 2-0
Kosale; KLN. कोसले ..	NE ..	947; 693; 112; 268	Vasind; 3-0
Kunde; KLN. कुंदे ..	NE ..	1,635; 636; 107; 245	Rayate; 4-0
Mamnoli; KLN. मामनोली ..	NE ..	1,343; 584; 94; 182	Rayate; 4-0
Mande; KLN. मांडे ..	NE ..	1,184; 2,680; 552; 258	Local; ..
Manivali; KLN. मानिवली ..	NE 8-0	707; 1,006; 168; 397	Mohana; 2-0
Manjarli T. Barhe; KLN. मांजली तर्फे बाहे	E 17-0	451; 537; 94; 159	Rayate; 3-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Shahad; 3-0 Dombivali; 5-0	Shahad; 3-0;	Stage;	W. Pl.	2 Sl (pr); 2 Cs; 2 tl. Sl (pr, m, h); 2 tl.
.. ..	.. ..	.. 0-4	..	Sl (pr); Cs.; 4 tl; gym; 3 dp; Cch.
..
Kalyan; 20-0 Vithalwadi; 0-2	Kalyan; 20-0; Thu. Kalyan; .. Thu.	.. 2-0 .. 0-1	W. Pl.	Sl (pr); Devi Fr. Ct. Vad. 1; tl. Sl (pr).
..
Local; ..	Padghe; 5-0; ..	Waghe- 0-1 ghar; Local; ..	W; rv. W.	2 tl. Sl (pr); 4 tl.
Kalyan; 7-0 Dombivali; 5-0	Kalyan; 7-0; Thu. Dombivali; 5-0; Daily.	.. .. .. ..	W; pl.	Sl (pr); Cs; Gokul Ash- tami; tl; dp.
Kalyan; 10-0 Kalyan; 2-4 Dombi- 0-1½ vali;	.. .. Kalyan; 2-4; Thu. Kalyan; 5-0; Thu.	.. 0-1 .. 2-4 .. 2-0	W; rv. W. Pl; rv.	Sl (pr); Cs.; tl. gym. Sl (pr, m); Magh-Maha- shivratra, Hanuman Jayanti Fr. Ct. Pur- nima. 3 tl.
Vasind; 4-0 Kalyan; 19-0	Padghe; 7-0; Sun. Kalyan; 19-0; Thu.	Vasind; 3-0 .. 2-0	W. W; rv.	Sl (pr); tl. Sl (pr); Cs.; Fr. Ct. Sud. Pournima Hanuman Jayanti; tl.
Kalyan; 18-0	Kalyan; 18-0; Thu.	.. ..	W; t.	Sl (pr); Cs; Fr. Ct. Sud. Pournima.; tl.
Titwala; ..	.. ..	Local; ..	..	Sl (pr, h); Cs; 6 tl; mq.; dg.; gym.; ch.; lib.; 3 dp.
Titwala; 2-0 8-0	.. .. .. ..	.. .. .. ..	W. Pl.	Sl (pr); Fr. Ct. Sud. 15; 2 tl. Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Mharal; KLN. (1); म्हाऱळ (१) ..	E ..	735; 1304; 202; 140	Varapgavi; 0-4
Mharal KLN. (2); Included in Urban area XXI. of Ulhasnagar Tahsil. म्हाऱळ, उल्हासनगर नागरी विभाग XXI मध्ये समाविष्ट	.. ..	.. .. ..	.. ..
Mhaskal; KLN. म्हसकळ ..	NE ..	1285; 706; 120; 163	Moda; 6-0
Mohili; KLN. मोहिली ..	NE 6-0	325; 469; 71; 150	Mohana; 1-0
Mohone; KLN. urban area XIX. मोहोने नागरी विभाग XIX.	NE ..	1,73; 11,344; 2,641; 68	.. ..
Mos; KLN. मोस ..	NE 11-0	235; 181; 25; 37	.. 1-0
Nadgaon. KLN. नडगांव ..	NE ..	1507; 1015; 179; 304	Khadavli; 1-0
Nalimbi; KLN. नालींबी ..	E 12-0	827; 322; 66; 93	Rayate; 4-0
Nandap; KLN. नांदफ ..	NE ..	405; 513; 91; 75	Majgaon; 1-0
Nandivali Tarf Ambernath; KLN. नांदीवली तर्फे अंबरनाथ	S 3-0	159; 156; 28; 30	Dwarli; 1-0
Nandivali Tarf Pachanand; KLN. नांदीवली तर्फे पाचनंद	SE ..	361; 1485; 337; 119	.. ..
Nilaje; KLN. निळजे ..	SW ..	722; 1595; 242; 206	Local; ..
Nimbavali; KLN. निंबवली ..	NE 11-0	565; 534; 77; 242	.. 1-0
Netivali; KLN. नेतिवली ..	S 0-4	245; 3026; 625; 73	Kalyan; 0-4
Ozarli; KLN. ओझरली ..	NE 10-0	338; 159; 27; 52	.. 5-0
Palsoli; KLN; पळसोली ..	NE 23-0	2793; 911; 145; 357	Vasind; 6-0
Phalegaon; KLN; फळेगांव ..	NE ..	1784; 1236; 200; 440	.. ..
Pimpaloli; KLN; पिंपळोली ..	E 11-0	179; 121; 17; 47	Rayate; 1-0
Pisavali; KLN; पिसावली ..	S 1-0	275; 603; 153; 32	Dwarli; 0-4
Poi; KLN; पोई ..	E 21-0	2206; 501; 82; 155	Rayate; ..
Rayate; KLN; रायते ..	E 10-0	886; 1094 177; 347	Local; ..
Raye; KLN; राये ..	NE 10-0	592; 1187; 252; 421	Khadawali; 3-0
Revati; KLN; रेवती ..	NE ..	430; 164; 28; 40	Rayate; 3-0
Runde; KLN; रुंदे ..	NE ..	1012; 395; 63; 114	.. ..
Sagaon Sonarpada; KLN; सागाव सोनारपाडा	SW 4-0	982; 2678; 487; 192	Manpada; 1-0
Sandap; KLN. संढप ..	SW ..	125; 376; 61; 31	Manpada; 0-1
Shahad (1); KLN; शहाड (१) ..	E ..	1396; 2167; 495; 116	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Shahad; 1-0	Ulhasnagar; 1-0; ..	.. 0-5	W; pl.	Sl (pr, m); Fr. Ct. 15; 4 tl.; dp.
..
Titwala; 6-0	.. .. ..	.. 2-0	W.	Sl (pr).
Titwala; 2-0	.. .. ..	.. ..	W.	Sl (pr).
..
Titwala; 1-0	.. .. ..	.. 3-0	W.	Sl (pr); tl.
Khadawali; 1-0	.. .. ..	.. ..	W.	Sl (pr); Cs.; tl.
Kalyan; 12-0	Kalyan; 12-0; ..	.. ..	W.	tl.
Titwala; 1-0	.. .. ..	.. ..	..	Sl (pr); Fr. Vsk. Sud. 3; 2 tl.
Kalyan; 3-0	Kalyan; 3-0; Thu.	.. 2-0	W.	Sl (pr).
..
Dombivali; 5-0	Kalyan; 12-0; ..	.. 2-0	W.	Sl (pr); Ram Navmi Fr. Ct. Sud-1.; Hanuman Jayanti Fr. Ct. Sud. 15; 4 tl.
Titwala; 1-0	.. .. ..	.. 3-0	W; pl.	Sl (pr); tl.
Kalyan; 0-4	Kalyan; 0-4; ..	Stage; ..	Pl.	Sl (pr); tl.; mq.; 3 dp.
.. 5-0	.. 0-2; ..	.. ..	W.	tl.
Vasind; 6-0	Padghe; 10-0; Sun.	Vasind; 6-0	W.	Sl (pr); tl.
..
Kalyan; 11-0	Kalyan; 11-0; ..	Rayate; 1-0	W.	....
Kalyan; 1-0	Kalyan; 1-0; Thu.	.. 0-1	Pl.	Sl (pr); tl. dp.
Kalyan; 21-0	Kalyan; 21-0; ..	.. 5-0	W.	Sl (pr).
.. 10-0	.. 10-0; ..	Stage; ..	W; rv.	Sl (pr); tl; dh.
Khadawali; 3-0	Kalyan; 10-0; ..	.. 5-0	W.	Sl (pr); mq; dg.
Kalyan; 10-0	Local; .. ..	.. ..	W.	Sl (pr).
..
Kalyan; 4-0	.. .. ..	.. ..	W.	Sl (pr); 2 dp.
Dombivali; 4-0	Kalyan; 7-0; Thu.	.. 0-1	W.	Sl (pr); 2 tl.
Local; ..	Kalyan; 3-0; Thu.	.. ..	W.	Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Shahad; KLN; (2) Included in urban area XXI of Ulhasnagar Tahsil. शाहाड (२) उल्हासनगर तालुक्यातील नागरी विभाग XXI मध्ये समाविष्ट	.. ..	.. .. .	.. ..
Shirdhon; KLN. शिरडोण ..	S ..	514; 370; 71; 92	Nilaje; 3-0
Sangode; KLN. सांगोडे ..	NE 12-0	926; 983; 214; 424	.. 2-0
Sapad; KLN. सापाड ..	N 2-0	735; 1454; 263; 218	Kalyan; 2-4
Thakurli; KLN. ठाकुर्ली ..	SW ..	1448; 6073; 1179; 496	Dombi- vali. 1-0
Tis; KLN. तिस ..	S 0-3	436; 2815; 590; 134	Dwarli; 2-0
Titwala; KLN. टिटवाळा ..	NE ..	1255; 1485; 249; 337	.. 2-0
Umbarde; KLN. उंबर्डे ..	N ..	668; 1640; 255; 253	Kalyan; 3-0
Umbharni; KLN. उंबर्णी ..	NE 7-0	292; 281; 63; 85	Mohana; 2-0
Usarghar; KLN. उसरघर ..	SW ..	467; 440; 69; 82	Manpada; 0-2
Ushid; KLN. उशीद ..	NE ..	1054; 410; 74; 193	.. ..
Utane; KLN. उतने ..	NE 11-0	929; 554; 102; 264	Khadawali; 2-0
Vadavali Bk; KLN. वडवली बु. ..	S 7-0	280; 529; 78; 140	Mangrul; 3-0
Vadavali T. Barhe; KLN. वडवली तर्फे बारहे	NE ..	586; 1049; 176; 150	.. 1-0
Vadavali Kh; KLN. वडवली खुर्द ..	S ..	214; 330; 55; 154	Nilaje; 2-0
Vadeghar; KLN. (1) वाडेघर (१) ..	N 0-4	415; 293; 35; 53	Kalyan; 0-4
Vadeghar; KLN. (2) Included in Urban area XVII वाडेघर (२) नागरी विभाग XVII मध्ये समाविष्ट	.. ..	.. .. .	.. ..
Vaholi; KLN. वाहोळी ..	E 12-0	1127; 612; 131; 201	Rayate; 3-0
Valkas; KLN. वाळकस ..	NE 17-0	352; 250; 44; 64	Khadawali; 2-0
Varap; KLN. वरप ..	E 4-0	465; 784; 146; 178	Local ..
Vasatshelvali; KLN. वसत शेलवली ..	SE 10-0	1048; 734; 117 ; 182	Badlapur; 4-0
Vasundri; KLN. वासुंद्री ..	NE 11-0	639; 508; 108; 191	.. 1-0
Vaveghar; KLN. वावेघर ..	NE 14	750; 463; 79; 110	Khadawali; 0-1
Vehele; KLN. वेहेळे ..	NE 22-0	860; 421; 58; 219	Vasind; 4-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
..
Dombivali; 19-0	Dombivali; .. Daily.	.. 5-0	W.	SI (pr); tl.
.. 2-0	.. ..	.. 3-0	W.	SI (pr); Cs.; Hanuman Jayanti Fr. Ct. Sud. 15; tl.
Kalyan; 2-4	Kalyan; 2-4 Thu.	.. 2-4	W.	SI (pr); Gavdevi Fr. Ct. Sud. 1; gym; tl.
Dombivali; 1-0	Dombivali; 1-0 ..	Dombivali; 1-0	W; pl.	4 SI (pr); Hanuman Jayanti Fr. Ct. Sud. 15; gym; Ch.
Kalyan; 0-3	.. ..	.. 0-1	Pl.	SI (pr); Fr. Ct. Sud. 15; dh; gym.; 4 tl.
Local; ..	.. ..	.. 0-1	W.	SI (pr); 4tl; 3 dg; dh.
Kalyan; 3-0	Kalyan; 3-0 Thu.	.. 3-0	W.	SI (pr, m.).
Titwala; 2-0	.. ..	.. ..	W.	SI (pr).
Dombivali; 5-0	Kalyan; 8-0 Thu.	.. ..	W.	SI (pr); Hanuman Jayanti Fr.; 2 tl.
..
Khadawali; 2-0	.. 5-0 ..	.. 5-0	W.	SI (pr).
Kalyan; 7-0	Kalyan; 7-0 Thu.	Stage; ..	W.	.. 2 tl.
.. 1-0	.. 3-0 ..	.. 1-0	W.	SI (pr); 3 tl.
Dombivali; 9-0	Dombivali; .. Daily.	Katal; 2-0	W.	SI (pr); tl; gym.
Kalyan; 0-4	Kalyan; 0-4 Thu.	Kalyan; 0-4	W.	SI (pr); 2 tl.
..
Kalyan; 12-0	Kalyan; 12-0 ..	.. ..	W; pl.	SI (pr, m); mq; dg.
Local; ..	Padghe; 3-0 Sun.	.. ..	W; rv.	....
Shahad; 1-0	.. ..	Local; ..	W.	SI (pr); 2 tl.
Badlapur; 4-0	.. ..	Jambhul 1-0	W; pl.	SI (pr); 2 tl.
Titwala; 1-0	.. ..	.. ..	..	SI (pr); Hanuman Jayanti Fr. Ct. Sud. 15; 2 tl.
Khadawali; 0-1	Padghe; 5-0 ..	.. ..	W; rv.	SI (pr).
Vasind; 4-0	Padghe; 8-0 Sun.	Vasind; 4-0	W.	SI (pr); 3 tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
MOKHADA TALUKA			
Adoshi; MKD. आडोशी	.. S 14-0	1984; 760; 149; 275	.. 1-5
Akare (fv); MKD. आकरे	.. W 28-0	7453; 881; 152; 379	Sava; 10-0
Ambale (fv); MKD. अंबले	.. S 25-0	1602; 51; 12; 26	.. ..
Ase; MKD. आसे	.. N 12-0	11968; 3057; 542; 2072	Hirve; 5-0
Ayare (fv); MKD. आयरे	.. W 21-0	4183; 638; 128; 370	Jawhar; 7-0
Barawadpada; MKD. बरवड पाडा	.. NW 34-0	941; 330; 61; 218	Sakhar-shet; 3-0
Beriste; MKD. बेरीस्ते	.. N 8-0	1923; 981; 204; 490	Hirawe; 2-0
Bopdari; MKD. बोपदरी	.. NW	2747; 475; 139; 123	Sakhar-shet; 7-0
Botoshi; MKD. बोदोशी	.. S 17-0	3292; 623; 104; 274	Pathardi; 3-0
Chas; MKD. चास	.. N 6-0	4062; 1122; 236; 523	Mokhada; 6-0
Dabheri; MKD. दाभेरी	.. NW	2162; 796; 159; 445	Sakhar-shet; 5-0
Dabhos; MKD. दाभोस	.. NW	1174; 741; 131; 265	Sakhar-shet; 3-0
Dablon; MKD. दाबलोण	.. NW 35-0	1074; 567; 105; 223	Sakhar-shet; 5-0
Dadhari; MKD. दाधरी	.. NW 35-0	1360; 522; 93; 251	.. 8-0
Dahul; MKD. डाहूल	.. W 42-0	736; 1263; 237; 114	Sakhar-shet; 5-0
Dandwal; MKD. दांडवल	.. NE 8-0	2530; 669; 145; 456	Mokhada; 8-0
Daskond; MKD. दसकोंड	.. W 37-0	809; 337; 66; 202	Sakhar-shet; 4-0
Dhamanshet; MKD. धामणशेत	.. S 10-0	2741; 557; 108; 335	Palsunde; 4-0
Dhondmaryachimet; MKD. धोंडमाच्योची मेट	.. SE 7-0	746; 183; 36; 79	Palsunde; 1-0
Dolhare; MKD. डोल्हारे	.. SE 10-0	2459; 633; 135; 340	Palsunde; 2-0
Ghanwal; MKD. घानवल	.. NE 9-0	2036; 767; 155; 465	Mokhada; 9-0
Ghiwande; MKD. गिर्वंडे	.. NW 10-0	1997; 811; 149; 488	Jamsar; 3-0
Gomghar; MKD. गोमघर	.. S 17-0	3861; 1023; 198; 515	Khodole; 3-0
Gonde; BK; MKD. गोंडे बुद्रुक	.. E 9-0	4060; 983; 208; 363	Mokhada; 9-0
Gonde; Kh; MKD. गोंडे खुर्द	.. SE	1605; 459; 80; 295	Mokhada; 2-0
Hirve; MKD. हिरवे	.. NE 8-0	1691; 878; 160; 561	Local; ..
Jogalwadi; MKD. जोगलवाडी	.. SE 15-0	1472; 537; 115; 301	Khodale; 3-0
Karegaon; MKD. कारेगांव	.. SE 25-0	2920; 824; 182; 350	Local; ..
Karol; MKD. करोल	.. SE	2492; 348; 70; 222	Karegaon; 3-0
Kashti; MKD. काष्टी	.. S 32-0	2397; 233; 46; 95	Karegaon; 12-0
Kayari; MKD. कायरी	.. NW 40-0	1055; 583; 120; 348	Sakhar-shet; 5-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Kasara; 21-0	.. 1-5; ..	.. 1-5	W.	Sl (pr); tl.
Dahanu 35-0 Road;	Jawhar; 14-0; Fri.	.. 5-0	W; rv.	Sl (pr); Cs; tl.
.. 11-0	.. ..	.. 14-0	..	....
Kasara; 45-0	Pimpalpada; 3-0; Wed.	Stage; ..	W.	4 Sl (pr); tl.
.. 45-0	Jawhar; 7-0; Fri.	.. 7-0	W; rv.	Sl (pr); Cs; Rangpan- chami Fr.; tl.
Dahanu 58-0 Road;	Talasari; .. Sat.	.. 8-0	W.	Sl (pr); tl.
Kasara; 41-0	Hirawe; 2-0; Wed.	Stage; ..	W.	Sl (pr); tl.
Dahanu 60-0 Road;	Talasari; 7-0; Sat.	Sakhar- shet; 7-0	W.	Sl (pr); tl.
Kasara; 19-0	Khodale; 7-0; ..	.. ..	W.	Sl (pr).
Kasara; 45-0	Mokhada; 6-0; Sun.	Mokhada; 6-0	W.	Sl (pr); 3 tl.
Dahanu 57-0 Road;	Talasari; 5-0 ..	Sakhar- shet; 5-0	W.	Sl (pr); tl.
Dahanu 45-0 Road;	Vadoli; 2-0 Sun.	.. 1-0	W.	Sl (pr); tl.
Dahanu; 55-0 Road;	Talasari; 4-0; ..	.. ..	W.	tl.
.. 55-0	.. ..	.. 8-0	W.	Sl (pr); tl.
Dahanu 37-0 Road;	Talasari; 5-0 ..	Sakhar- shet; 5-0	W.	Sl (pr); tl.
Kasara; 41-0	Molhadia; 8-0; Sun.	.. 2-0	W.	Sl (pr); tl.
Dahanu 33-0 Road;	Talasari; 5-0; Sat.	.. 3-0	W.	Sl (pr); tl.
Kasara; 22-0	Natewada; 10-0; Sun.	Rudak- wadi; 3-0	W.	Sl (pr).
Kasara; 30-0	.. ..	Palsunde; 1-0	W.	Sl (pr).
Kasara; 17-0	Khodale; 6-0; ..	.. ..	W.	Sl (pr); tl;
.. ..	.. ..	.. ..	W.	....
Kasara; 62-0	Vinwal; 1-0 Sun.	Jamasar; 3-0	W.	Sl (pr); tl.
Kasara; 22-0	Khodale; 3-0; ..	Khodale; 3-0	W.	Sl (pr); 3 tl.
Kasara; 40-0	Mokhada; 9-0; Sun.	Stage; ..	W.	Sl (pr).
Kasara; 33-0	.. ..	Mokhada; 2-0	W.	Sl (pr); tl.
Kasara; 44-0	.. .. Wed.	.. ..	W.	Sl (pr); tl.
Kasara; 30-0	Khodale; 3-0; Sat.	Stage; ..	W.	Sl (pr); tl.
Kasara; 25-0	.. ..	Stage; ..	W.	2 tl.
Kasara; 10-0	Khodale; 7-0; ..	.. ..	W.	Sl (pr); tl.
Kasara; 35-0	Khodale; 11-0; Sat.	.. ..	..	Sl (pr); tl.
Dahanu 62-0 Road;	Talasari; 4-0; ..	Talasari; 5-0	W.	Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural population	Post Office; Distance
1	2	3	4
Kevnal ; MKD. केवनाळ	.. S 26-0	2335; 316; 63; 146	.. 5-0
Khoch; MKD. खोच	.. SE 7-0	3767; 1085; 224; 719	Palsunde; 1-0
Khodale; MKD. खोडाले	.. SE 15-0	1672; 1432; 268; 314	Local; ..
Kinaste; MKD. किनस्ते	.. SE ..	1577; 607; 125; 225	Kasegaon; 6-0
Kirmire; MKD. किरमरे	.. NW ..	1254; 521; 111; 192	Sakhar- 5-0 shet;
Kochale; MKD. कोचाले	.. SE 23-0	2609; 430; 93; 129	Karegaon; 1-0
Kokde; MKD. कोकदे	.. W 23-0	3422; 1071; 212; 618	Jawhar; 10-0
Kortad; MKD. कोरताड	.. NW 32-0	893; 606; 110; 384	Sakhar- 2-0 shet;
Koshimshet; MKD. कोशीमशेट	.. S 9-0	1795; 920; 186; 301	Palkade; 3-0
Kurlod ; MKD. कुरलोद	.. S 18-0	2759; 570; 102; 177	Pathardi; 6-0
Medhe; MKD. मेढे	.. NW 34-0	1601; 742; 130; 481	Sakhar- 4-0 shet;
Mokhada; मोखाडा	.. HQ ..	5446; 4835; 906; 1324	Local; ..
Morchyachapada; MKD. मोर्चाचा पाडा	.. W 35-0	892; 507; 85; 356	Sakhar- 3-0 shet;
Morhande; MKD. मोरहंडे	.. E ..	2553; 1298; 240; 823	Mokhada; 6-0
Nashere; MKD. नशिरे	.. SE ..	2750; 373; 77; 134	Khodale; 2-0
Osarvira; MKD. ओसरविरा	.. N 10-0	2404; 828; 152; 508	Hirwe; 2-0
Ozar; MKD. ओसर	.. NW 41-0	2383; 665; 125; 395	Sakhar- 5-0 shet;
Panchghar; MKD. पांचघर	.. SE ..	1867; 320; 62; 196	Karegaon; 2-0
Pathardi; MKD. पाथर्डी	.. S ..	1955; 431; 79; 182	.. ..
Palshin; (fv) MKD. पळसीन	.. ..	3634; 83; 16; 47	Sakhar- 5-0 shet;
Palsunde; MKD. पळसुंदे	.. SE 9-0	2526; 550; 126; 331	Local;
Pimpron; MKD. पिंपरीन	.. NW 24-0	513; 305; 61; 182	Sakhar- 2-0 shet;
Poshera; MKD. पोशेरा	.. E 5-0	5576; 2326; 431; 1472	Mokhada; 5-0
Ruighar ; MKD. रुईघर	.. NW 38-0	526; 215; 59; 90	Sakhar- 7-0 shet;
Sakhari; MKD. साखरी	.. S ..	2160; 905; 207; 452	Palsunda; 3-0
Sakharshet; MKD. साखरशेट	.. NW 30-0	3557; 1540; 281; 862	Sakhar- .. shet;
Saturly; MKD. सातुर्ली	.. S 5-0	2044; 918; 184; 528	Palsunde; 2-0
Savarpada; MKD. सावरपाडा	.. NW 32-0	1332; 778; 133; 497	Sakhar- 2-0 shet;
Sawarde; MKD. सावर्डे	.. S 35-0	4161; 327; 65; 104	Kareg- 13-0 gaon;
Sayade; MKD. सायदे	.. SE 18-0	3048; 972; 187; 637	Khodale; 3-0
Shivali; MKD. शिवली	.. S 7-0	1108; 430; 88; 241	Mokhada; 7-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Kasara; 31-0	Khodale; 12-0; Sat.	.. 5-0	W.	Sl (pr).
Kasara; 30-0	Mokhada; 7-0; Sun.	.. 5-0	W.	Sl (pr).
Kasara; 19-0	Local; .. Sun.	Local; ..	W.	Sl (pr); m; 2Cs; 4tl; lib.
Kasara; 15-0	Khodale; 7-0 Sat.	.. ..	W.	Sl (pr); Cs; 2 tl.
Dahanu 54-0	Talasari; .. ..	.. 3-0	W.	Sl (pr); tl.
Road;				
Kasara; 9-0	.. ..	Karegaon; 1-0	W.	Sl (pr).
Dahanu 48-0	Wadola; 4-0; Sun.	Stage; ..	W.	Sl (pr); tl.
Road;				
Dahanu 50-0	Talasari; 4-0; Sat.	.. 2-0	W.	Sl (pr); Cs; tl.
Road;				
Kasara; 21-0	Mokhada; 9-0; Sun.	Sadakwadi 2-0	W.	Sl (pr); Cs.
Kasara; 18-0	Khodale; 6-0; Sat.	Khodale; 6-0	W.	Sl (pr); tl.
Dahanu 52-0	Talasari; 2-0; Sat.	.. 4-0	W.	Sl (pr); tl.
Road;				
Kasara; 32-0	Local;	Local; ..	..	5 Sl (pr); Cs; Fr. Phl. Panchami; 3tl; mq;dp.
Dahanu 5-0	Talasari; 5-0; Sat.	Thorwad; 2-0	W.	Sl (pr); tl.
Road;				
Kasara; 32-0	Mokhada; 6-0; Sun.	.. ..	W.	Sl (pr); tl.
Kasara; 15-0	Khodale; 2-0; Sat.	Khodale; 2-0	..	Sl (pr); Cs; tl.
Kasara; 44-0	Hirwe; 2-0; ..	Beristic; 3-0	W.	Sl (pr).
Dahanu 55-0	Talasari; 5-0; Sat.	Kortad; 3-0	W.	Sl (pr); tl.
Road;				
Kasara; 12-0	Khodale; 9-0; ..	.. ..	W.	Sl (pr); tl.
	Talasari; 6-0; ..	Katetad; 5-0	W.	tl.
Dahanu 52-0	.. ..	.. 1-0	W.	Sl (pr); 2 tl.
Road;				
.. 30-0	Vadoli; 1-0; Sun.	.. 4-0	W.	Sl (pr); tl.
Dahanu 44-0	Mokhada; 5-0; Sun.	.. ..	W.	3 Sl (pr); Fr. Ct. Pour-nima; 3 tl.
Road;				
Kasara; 35-0	Talasari; 7-0; Sat.	Sakhar-shet; ..	7-0 W.	Sl (pr); tl.
Dahanu 60-0	Mokhada; 3-0; Sun.	.. 1-0	W.	tl.
Road;				
Kasara; 34-0	Talasari; 3-0; Sun.	Stage; ..	W.	3 Sl (pr, h); 3 tl.
Dahanu 47-0	Talasari; 3-0; Sun.	Stage; ..	W.	3 Sl (pr, h); 3 tl.
Road;				
.. ..	.. ..	.. 2-0	W.	Sl (pr); tl.
Dahanu 50-0	Talasari; 3-0; Sat.	.. 2-0	W.	Sl (pr); tl.
Road;				
Kasara; 35-0	Khodale; 13-0; ..	.. ..	..	Sl (pr).
Kasara; 13-0	Khodale; 3-0; Sat.	Khodale; 3-0	W.	Sl (pr).
Kasara; 37-0	Mokhada; 7-0; Sun.	.. ..	W.	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Suryamal; MKD. सूर्यमाळ	.. S 21-0	3774; 600; 121; 302	Local; ..
Talasari; MKD. तलासरी	.. NW 32-0	2377; 900; 176; 490	Sakhar- shet; 2-0
Udhale; MKD. उधाले	.. SE 20-0	1909; 1115; 235; 328	Khodale; 4-0
Vangani; MKD. वांगणी	.. NW 38-0	1162; 231; 52; 100	Jamsar; 14-0
Vashind; MKD. वाशिंद	.. S 18-0	1673; 260; 47; 130	Khodale; 4-0
Vavar; MKD. वावर	.. NW 35-0	5140; 1263; 237; 751	Jamsar; 11-0
Washale; MKD. वाशाळे	.. S 6-0	4149; 1517; 286; 852	Mokhada; 6-0
MURBAD TALUKA			
Agashi; MRD. आगाशी	.. SE ..	1188; 463; 75; 183	.. ..
Alawe; MRD. आळवे	.. NE ..	598; 204; 42; 85	Hiroshi; 3-0
Alyani; MRD. अलयाणी	.. E 15-0	502; 168; 29; 83	Dhasai; 1-0
Ambegaon; MRD. अंबेगाव	.. SE ..	1365; 555; 106; 214	Mhasa; 2-0
Ambele BK.; MRD. अंबेळे बु.	.. NE 6	970; 603; 102; 312	Murbad; 6-0
Amble Kh.; MRD. अंबेळे खु.	.. NE 10	344; 360; 61; 131	Saralgaon; 2-0
Ambetembhe; MRD. अंबेटेंभे	.. SE ..	382; 300; 45; 150	Mhasa; 2-0
Ambiwali; MRD. अंबिवली	.. NE ..	547; 204; 41; 95	Shiroshi; 5-0
Asole; MRD. असोळे	.. NW 5	2167; 882; 133; 242	Murbad; 5-0
Asose; MRD. असोसे	.. NW ..	1723; 470; 74; 228	Murbad; 5-0
Balegaon; MRD. बळेगाव	.. NE ..	1769; 813; 151; 440	Dhasai; 3-0
Baandhivali; MRD. बांधिवली	.. SE 10	813; 409; 69; 195	Murbad; 10
Bhadane; MRD. भादाने	.. NE 11-0	1344; 859; 153; 419	Saralgaon; 3-0
Bhaluk; MRD. भालुक	.. NE 7	1129; 633; 101; 288	Murbad; 7-0
Bhorande; MRD. भोरांडे	.. NE 25	2022; 367; 85; 129	Dhasai; 8-0
Birwadi; MRD. बिरवाडी	.. SW 6-4	604; 194; 28; 102	Murbad; 6-0
Boriwali; MRD. बोरीवली	.. SE 5-0	405; 246; 41; 117	Mhasa; 2-0
Bursunge; MRD. बुरसुंगे	.. NE ..	650; 279; 43; 136	Shiroshi; 3-0
Bhuwan; MRD. भुवन	.. E 4	1167; 765; 112; 325	Murbad; 4-0
Bramhangaon; MRD. ब्राह्मणगाव	.. NW ..	547; 271; 67; 136	Murbad; 2-4
Chafe Tarf Khedul; MRD. चाफे तर्फ खेडुल	.. E 17	559; 228; 40; 88	Dhasai; 1-0
Chikhale; MRD. चिखळे	.. NW 11-0	477; 188; 39; 93	Murbad; 11-0
Chasole; MRD. चासोळे	.. NE 24	1782; 616; 103; 322	Shiroshi; 4-0
Chirad; MRD. चिरड	.. SE 70	649; 270; 47; 87	Mhasa; 2-0
Dahigaon; MRD. दहीगाव	.. E ..	682; 184; 31; 88	Dhasai; 1-4
Dahivali; MRD. दहीवली	.. E ..	691; 379; 74; 143	Majalgaon; 1-0
Dehanoli; MRD. डेहानोली	.. NW 7-0	641; 434; 74; 205	Murbad; 7-0
Deoghar; MRD. देवघर	.. E 18-0	168; 24; 5; 9	Dhasai; 4-0
Deope; MRD. देवपे	.. W 1-0	702; 995; 193; 387	Murbad; 1-0
Dhaniwali; MRD. धानिवली	.. NW 2-0	1097; 430; 74; 150	Mutwad; 2-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Kasara; 26-0	Khodale; 7-0; Sat.	Stage; ..	W.	SI (pr); 2 tl.
Dahanu 55-0	Local; .. Sat.	Stage; ..	W.	SI (pr); 3 tl.
Road;				
Kasara; 14-0	Khodale; 4-0; Sat.	.. ..	W.	Cs; tl.
Dahanu; 56-0	Vinwal; 9-0; ..	.. ..	W.	SI (pr).
Road				
Kasara; 23-0	Khodale; 4-0; Sat.	Khodale; 4-0	W.	SI (pr); tl.
Dahanu; 53-0	Vinwal; 6-0; Tue.	Malghar; 4-0	W.	SI (pr); tl.
Road;				
Kasara; 3-0	Mokhada; 6-0; Sat.	Stage; ..	W.	SI (pr); 4 tl.
Kalyan; 30-2	Murbad; 10-2; Fri.	Mhasa; 3-0	W.	SI (pr); Cs; 2 tl.
Kalyan; 44-0	Dhasai; 14-0; Mon.	.. 3-0	..	SI (pr); 2 tl.
Kalyan; 34	Dhasai; 1-0; Mon.	.. ..	W.	SI (pr); tl.
Kalyan; 26	.. ..	Mhasa; 2-0	W.	SI (pr); tl.
Kalyan; 26	Saralgaon; 2-4; Tue.	.. 1-0	W.	SI (pr); Cs; tl.
Kalyan; 10-00	Saralgaon; 2-0; Tue.	Stage; ..	W; rv.	Cs.; 2 tl.
Kalyan; 10-0	Murbad; 10-0; Fri.	.. 2-0	W.	SI (pr); Cs; 2 tl.
.. ..	Dhasai; 16-0; Mon.	.. 3-0	W.	SI (pr); tl.
Kalyan; 18-0	Murbad; 5-0; Fri.	Kishor; 2-0	W.	SI (pr); Cs; tl.
Kalyan; 15-0	Murbad; 5-0; Fri.	.. 3-0	W; rv.	tl.
Kalyan; 33-0	Dhasai; 3-0; Mon.	.. 0-4	W.	SI (pr); 3 tl.
Kalyan; 29	Murbad; 10-0; Fri.	.. 5 0	W.	SI (pr); Cs; 3 tl. ch;
Kalyan; 27 0	Saralgaon; 3-0; Tue.	.. 1-0	W; t.	SI (pr); Cs; 3 tl.
Kalyan; 25-0	Saralgaon; 5-0; Tue.	.. 4-0	W; rv.	SI (pr); tl.
Kalyan; 48	Dhasai; 8-0; Mon.	.. 4-0	W.	SI (pr)
.. ..	Murbad; 6-0; Fri.	Murbad; 6-4	W; rv.	SI (pr); tl; lib.
Kalyan; 24-0	.. ..	.. 2-0	W.	SI (pr); tl.
Kalyan; 47-0	Dhasai; .. 4-0; Mon.	.. Stage	W; rv.	SI (pr); tl.
Kalyan; 23-0	Murbad; 4-0; Fri.	.. 1-0	W; t.	SI (pr); Cs; tl.
Kalyan; 17-4	Murbad; 2-4; Fri.	Murbad; 2-0	W; t.	SI (pr); 3 tl.
Kalyan; 37-0	Dhasai; 1-0; Mon.	.. 1-0	W.	SI (pr); tl.
Kalyan; 22-0	Murbad; 11-0; Fri.	.. 2-0	W; rv.	SI (pr); Cs; tl.
Kalyan; 44-0	Dhasai; 8-0; Mon.	.. 4-0	rv.	SI (pr); 2 tl., M.
Kalyan; 26-0	.. ..	Mhasa; 2-0	W.	SI (pr); tl.
Kalyan; 37-0	Dhasai; 1-4; Mon.	.. 1-4	W.	SI (pr);
Kalyan; 30-0	Saralgaon; 3-0; Tue.	Stage; ..	W.	Cs; tl.
Kalyan; 28-0	Murbad; 7-0; Fri.	.. ..	W; rv.	tl; Cch.
Kalyan; 37-0	Dhasai; 4-0; Mon.	Palu; 2-0	W.	SI (pr); Cs; tl.
Kalyan; 20-0	Murbad; 1-0; Fri.	.. 1-0	W.	SI (pr); Cs; tl. lib.
Kalyan; 17-0	Murbad; 2-0; Fri.	Murbad; 2-0	W.	SI (pr); Cs; tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Dhasai; MRD. धसाई	.. E ..	1544; 2355; 438; 517	Local; ..
Dighephal; MRD. दिघेफळ	.. NE ..	262; 27; 6; 14;	.. ..
Diwanpada; MRD. दिवाण पाडा	.. NE 27-0	430; 133; 25; 884	Dhasai; 9-0
Dongarnhave; MRD. डोंगर न्हावे	.. SE ..	3508; 816; 149; 390	Mhasa 3-0
Dudhanoli; MRD. दुधनोळी	.. SE ..	1195; 339; 72; 151	Dhasai 4-0
Dahigaon; MRD. दाहीगांव	.. SE 7-0	592; 596; 85; 222	Murbad; 7-0
Fangaloshi; MRD. फांगळोशी	.. NE 30-0	2263; 322; 69; 159	Shiroshi; 5-0
Fangane; MRD. फांगणे	.. NE 24-0	1251; 299; 72; 112	Dhasai; 7-0
Fangulgawhan; MRD. फांगुळगव्हाण	.. NE 26-0	1767; 600; 130; 328	Dhasai; 14-0
Fansoli; MRD. फणसोळी	.. SW 1-0	1757; 730; 128; 246	Murbad; 1-0
Gawali; MRD. गवळी	.. SE ..	692; 496; 84; 227	Mhasa; 1-5
Ghagurli; MRD. घागुर्ली	.. SE 10-0	445; 191; 32; 94	.. 10-0
Ghorale; MRD. घोरले	.. W ..	796; 338; 48; 167	.. ..
Hedawali; MRD. हेदवली	.. NE 17-0	399; 194; 38; 87	Tokawade; ..
Hireghar; MRD. हिरेघर	.. NW 11-0	642; 106; 23; 48	Murbad; 11-0
Iklahare; MRD. एकलहारे	.. NE ..	1271; 981; 182; 491	.. ..
Inde; MRD. इंदे	.. NE 12-0	1514; 559; 87; 232	.. 1-4
Jadai; MRD. जडई	.. NE ..	1381; 452; 80; 167	.. 3-0
Jaigaon; MRD. जायगाव	.. E 19-0	580; 264; 53; 107	Dhasai; 3-0
Jambhorde; MRD. जामोर्डे	.. SE ..	873; 653; 121; 273	Mhasa; 4-0
Jamghar; MRD. जामघर	.. SE ..	270; 336; 53; 145	Murbad; 6-0
Kachakoli; MRD. काचकोली	.. SE ..	1778; 426; 72; 207	Mhasa; 3-0
Kalambad; MRD. कळंबाड	.. SE ..	372; 231; 36; 95	.. ..
Kalambad Bhondivale; MRD. कळंबाड भोंडीवले	.. E ..	1765; 1070; 184; 330	Dhasai; 4-0
Kalambhe; MRD. कळंबे	.. SE ..	1555; 785; 140; 315	Murbad; 12-0
Kalamkhande; MRD. कळंब खांडे	.. E 5-0	743; 557; 96; 315	Murbad; 5-0
Kandali; MRD. कांदली	.. E ..	339; 162; 44; 87	Dhasai; 2-0
Kanharle; MRD. कान्हारले	.. E ..	1230; 572; 78; 163	Majgaon; 0-3
Kanhol; MRD. कान्होळ	.. SE ..	1030; 445; 84; 119	Mhasa; 0-4
Karchonde; MRD. करचोंडे	.. NE 19-0	702; 343; 69; 196	.. ..
Karvele; MRD. करवेळे	.. NW 8-0	2891; 1190; 199; 608	Murbad; 8-0
Kasgaon; MRD. कासगांव	.. NE 10-0	2169; 1385; 235; 585	Saralgaon; 2-5
Kedurli; MRD. केदुरली	.. SE 7-0	824; 591; 104; 287	Murbad; 7-0
Khamghar; MRD. खामघर	.. S ..	463; 104; 17; 39	Murbad; 7-4
Khandape; MRD. खांडपे	.. NE 11-0	1693; 1237; 192; 567	Murbad; 11-0
Khandare; MRD. खांदारे	.. SE ..	1089; 512; 100; 195	Murbad; 7-0
Khaniware; MRD. खानिवरे	.. SE ..	1251; 531; 83; 253	Mhasa; 4-0
Khapari; MRD. खापरी	.. NE 17-0	2015; 658; 148; 314	Yeka- wade; 1-5

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
.. ..	.. ..	Stage; ..	W.	Sl (pr); Cs; 3 tl; dh; ch; lib; 3 dp.
Kalyan; 50-0	Dhasai; 9-0; Mon.	.. 5-0	W.	Sl (pr); Cs.
Kalyan; 31-0	Saralgaon; 16-0; Tue.	.. 3-0	W.	Sl (pr); 2 tl.
Kalyan; 8-0	Dhasai; 4-0; Mon.	.. 4-0	3W; rv.	Sl (pr); 2 tl.
Kalyan; 28-0	Saralgaon; 5-0; Tue.	Shirwali; 3-0	W; t.	Sl (pr); tl; ch.
Kalyan; 50-0	Dhasai; 16-0; Mon.	.. 3-0	W.	Sl (pr); tl.
Kalyan; 47-0	Dhasai; 7-0; Mon.	.. 5-0	W.	Sl (pr); Cs; tl.
Kalyan; 46-0	Dhasai; 14-0; Mon.	Tokawade; ..	W; rv.	Sl (pr); Fr. Ct. Sud. 12.
Kalyan; 20-0	Murbad; 1-0; Fri.	.. 1-5	W.	2 Sl (pr); tl.
Kalyan; 25-0	.. ..	Mhasa; 1-5	W.	Sl (pr); tl.
Kalyan; 29-0	Murbad; 10-0; Fri.	.. 5-0	W.	Sl (pr); tl.
Badlapur; 10-0	Murbad; 4-0; Fri.	.. 0-6	W; rv.	Sl (pr); tl.
Kalyan; ..	Dhasai; .. Mon.	.. ..	..	Sl (pr)
Kalyan; 22-0	Mrubad; 11-0; Fri.	.. 2-0	W.	tl.
.. ..	.. ..	.. 3-0	W.	3 Sl (pr); 3 tl.
Kalyan; 33-0	Saralgaon; 6-0; Tue.	.. 0-4	W; Pl.	2 Sl (pr); Cs; 2 tl.
Kalyan; 44-0	Dhasai; .. Mon.	.. 2-0	W; w.	Sl (pr); tl; mq.
Kalyan; 39-0	Dhasai; 3-0; Mon.	Dhasai; 3-0	W.	Sl (pr); tl.
Kalyan; 30-0	Saralgaon; 10-0; ..	Mhasa; 4-0	W.	Sl (pr); tl.
Kalyan; 27-0	Saralgaon; 3-0; Tue.	Shiwale; 2-0	W; n.	Sl (pr); tl.
Kalyan; 28-0	Murbad; 8-0; Fri.	.. 3-0	W.	Sl (pr); Cs; tl.
Kalyan; 39-0	Dhasai; .. Mon.	Dhasai; 4-0	W.	Sl (pr); Cs; tl.
Kalyan; 32-0	Saralgaon; 4-0; Tue.	Majalgaon; 3-0	W; t.	Sl (pr); Cs; tl; Hanuman Fr.
Kalyan; 24-0	Saralgaon; 3-0; Tue.	.. 1-0	W; rv.	Sl (pr); Ct. Sud. 15; tl.
Kalyan; 34-0	Dhasai; 2-0; Mon.	Ojiwale; 1-4	W.	Sl (pr); tl.
Kalyan; 30-0	Saralgaon; 2-0; Tue.	.. 0-3	W; t.	Sl (pr); Cs; 2 tl.
Kalyan; 23-0	.. ..	.. ..	W.	Sl (pr); tl.
Kalyan; ..	Dhasai; .. Mon.	.. 1-0	..	Cs; tl.
Kalyan; 19-0	Murbad; 8-0; Fri.	Stage; ..	W.	Sl (pr); m; Cs; tl.
Kalyan; 30-0	Saralgaon; 3-0; Tue.	.. 1-0	W; rv.	Sl (pr); Cs; Mahashiv- ratra Fr. Mg. Vad. 14; 7tl; m; dg; dh; lib.
Kalyan; 26-0	Saralgaon; 7-0; Tue.	.. 2-0	W.	Sl (pr); tl.
.. ..	Murbad; 7-4; Fri.	Murbad; 5-0	W.	tl.
Kalyan; 26-0	Saralgaon; 3-0; Tue.	.. 3-0	W.	Sl (pr); Cs; tl.
Kalyan; 28-0	Saralgaon; 3-0; Tue.	.. 2-0	W; n.	Sl (pr); tl; lib.
Kalyan; 30-0	Saralgaon; 10-0; ..	.. 4-0	W.	Sl (pr); tl.
Kalyan; 38-0	.. ..	Stage; ..	W.	Sl(pr); Cs; Ct. Sud. 15; tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Khateghar; MRD. खाटेघर	E 4-0	473; 427; 72; 105	Murbad; 4-0
Khed; MRD. खेड	NE 27-2	849; 217; 43; 105	.. ..
Khedale; MRD. खेडले	E ..	729; 411; 79; 161	Local; ..
Kheware; MRD. खेवारे	E ..	715; 456; 77; 199	Dhasai; 2-11
Khopivali; MRD. खोपिवली	SE 16-0	1525; 827; 133; 381	Majgaon; 5-0
Khutal-Bangla; MRD. खुटल बंगला	NE 10-0	2892; 297; 55; 91	Saralgaon; 2-0
Khutal-Borgaon; MRD. खुटल बोरगांव	NE 24-4	661; 851; 185; 476	Dhasai; 10-0
Kisal; MRD. कीसळ	NE ..	1405 978; 166; 460	.. ..
Kishor; MRD. किशोर	N ..	627; 515; 82; 192	Murbad; 3-4
Kochare Bk. MRD; कोचरे बुद्रुक	NE ..	926; 188; 42; 106	Tokawade; 4-0
Kochare Kh.; MRD. कोचरे खुर्द	NE 21-0	418; 66; 19; 33	Tokawade; 4-0
Kodawale; MRD. कोडावळे	E 6-0	1240; 930; 151; 312	Murbad; 6-0
Kole; MRD. काळे	SW 3-0	1785; 146; 30; 75	Murbad; 3-0
Koloshi; MRD. कोळोशी	E ..	801; 457; 94; 222	Dhasai; 4-0
Kolthan; MRD. कोलठाण	NE 7-0	2147; 1098; 172; 412	Murbad; 7-0
Kudawali; MRD. कुडवली	N 2-0	989; 585; 111; 277	Murbad; 2-0
Kudshet; MRD. कुडशेत	NE 19-0	960; 301; 60; 156	Dhasai; ..
Madh; MRD. मढ	E 20-0	1448; 469; 89; 139	Dhasai; 4-0
Mahaj; MRD. महाज	E ..	935; 394; 65; 114	Dhasai; 3-0
Majgaon; MRD. माजगांव	E ..	924; 743; 107; 288	Local; ..
Mal; MRD. माळ	NE ..	3979; 1429; 278; 805	Shiroshi; 1-0
Milhe; MRD. मिल्हे	SE ..	2928; 1165; 173; 563	Dhasai; 5-0
Malhed; MRD. माल्हेड	NE 7	1011; 579; 89; 216	Murbad; 7-0
Mandawe; MRD. मांडवे	SW 5-6	530; 188; 29; 133	Murbad; 6-0
Mandus; MRD. मांदुस	NE ..	296; 163; 34; 77	Shiroshi; 2-0
Mandwat; MRD. मांडवत	E 19-0	271; 116; 20; 44	Dhasai; 3-0
Maniwali Bk.; MRD. मानिवली बुद्रुक	NE 10-0	873; 672; 121; 363	Murbad; 10-0
Maniwali Kh.; MRD. मानिवली खुर्द	E ..	980; 557; 100; 263	Majalgaon; 1-0
Maniwali; (Shirawali) MRD. मानिवली (शिरवली)	S ..	1879; 661; 128; 271	Murbad; 4-0
Maniwali Traf Khedul; MRD. मानिवली तर्फ खेडूल	NE 15-0	592; 235; 37; 61	.. 1-0
Masale; MRD. मासळे	SW 4-0	3150; 951; 149; 501	Murbad; 4-0
Merdi; MRD. मेरदी	NE ..	6979; 950; 186; 398	Dhasai; 19-0
Mharas; MRD. म्हारस	SE 8-0	1158; 498; 96; 261	Murbad; 8-0
Mhase; MRD. म्हासे	SE 5-4	1935; 636; 126; 264	Local; ..
Mohaghar; MRD. मोहघर	S ..	2414; 584; 105; 263	Mhasa; 5-0
Mohap; MRD. मोहप	NE ..	851; 502; 70; 175	Saralgaon; 1-0
Moharai; MRD. मोहरई	NW 4-0	1531; 364; 73; 166	Murbad; 5-0

Railway Station; Distance		Weekly Bazar; Distance; Bazar Day		Motor Stand; Distance		Drinking Water facilities	Institutions and other information
5		6		7		8	9
Kalyan;	23-0	Murbad;	4-0; Fri.	..	..	W; rv.	SI (pr); Hanuman Fr. Vad. 15; tl.
Kalyan;	43-0	Dhasai;	13-0; Mon.	..	..	W.	SI (pr); tl.
Kalyan;	30-0	Dhasai;	.. Mon.	Majal-gaon;	2-0	3 W.	SI (pr); tl.
Kalyan;	38-0	Dhasai;	2-5; Mon.	Dhasai;	2-5	W.	SI (pr); tl.
Shahad;	34-0	..	1-0; Sun.	Majgaon;	5-0	W.	SI (pr); tl; mq.
Kalyan;	30-0	Saralgaon;	2-0; Tue.	Local;	..	W; rv.	SI (pr); Cs; tl.
..	..	..	.. ..	..	5-0	rv.	2 SI (pr); 2 tl.
..
Kalyan;	16-0	Murbad;	3-0; Fri.	Stage;	..	..	SI (pr); Cs; tl.
Kalyan;	41-0	Dhasai;	8-0; Mon.	..	0-2	rv.	.. ..
Kalyan;	41-0	Dhasai;	8-0; Mon.	..	0-7	..	SI (pr); tl.
Kalyan;	..	Saralgaon;	5-0; Tue.	..	3-0	..	SI (pr); Cs; tl.
Kalyan;	22-0	Murbad;	3-0; Fri.	..	4-0	W.	.. ..
Kalyan;	18-0	Dhasai;	4-0; Mon.	..	4-0	W.	SI (pr); tl.
Kalyan;	25-0	Saralgaon;	4-0; Tue.	..	0-3	W; rv.	SI (pr); Pyt; 2 tl.
Kalyan;	21-0	Murbad;	2-0; Fri.	..	2-0	W.	SI (pr); Cs; tl.
Kalyan;	..	Dhasai;	.. Mon.	..	..	..	SI (pr); mq.; dg.
Kalyan;	40-0	Dhasai;	4-0; Mon.	Dhasai;	4-0	W.	SI (pr); Cs; tl.
Kalyan;	39-0	Dhasai;	3-0; Mon.	Dhasai;	3-0	W.	SI (pr); tl.
Kalyan;	31-0	Saralgaon;	3-0; Tue.	Stage;	..	rv.	SI (pr); Cs; tl.
Kalyan;	44-0	Dhasai;	12-0; Mon.	Stage;	..	W; t.	3 SI (pr); Cs; 3 tl.
Kalyan;	51-0	Dhasai;	5-0; Mon.	Dhasai;	5-0	W; rv.	SI (pr); Cs; 2 tl.
Kalyan;	28-0	Murbad;	7-0; Fri.	..	2-0	W.	SI (pr); Cs; 3 tl.
..	..	Murbad;	6-0; Fri.	Murbad;	5-6	W; rv.	SI (pr); tl.
Kalyan;	47-0	Dhasai;	13-0; Mon.	..	..	W.	SI (pr); tl.
Kalyan;	39-0	Dhasai;	3-0; Mon.	Dhasai;	3-0	W.	SI (pr); tl.
Kalyan;	31-0	Kinhavali;	.. Wed.	..	..	W; rv.	SI (pr); 1 tl.
Kalyan;	30-0	Saralgaon;	2-0; Tue.	Majal-gaon;	2-0	W.	SI (pr); Cs; tl.
Kalyan;	24-0	Murbad;	4-0; Fri.	..	1-0	W.	SI (pr); Cs; 2 tl.
Kalyan	36-0	Dhasai;	3-0; Mon.	..	..	W.	SI (pr); tl.
Badlapur;	9-0	Murbad;	9-0; Fri.	..	2-0	W; t.	SI (pr); 2 tl.
Kalyan;	50-0	..	.. ..	..	18-0	W.	SI (pr).
Kalyan;	28-0	Saralgaon;	7-0; Tue.	..	3-0	W.	SI (pr); Fr. Sr. Vad 8; Mg. 15; 2tl; ch; dp.
..
Kalyan;	24-0	..	.. ..	Stage;	..	W.	SI (pr); Paush 15; 2tl.
Kalyan;	3-0	Murbad;	10-0; Fri.	..	3-0	W; rv; t.	SI (pr); Cs; 2 tl.
Kalyan;	25-0	..	.. ..	..	..	W.	SI (pr); Cs; tl; Ct. Sud. 15.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Moroshi; MRD. मोरोशी	.. NE ..	857; 477; 94; 221	Dhasai; 12-0
Murbad; मुरबाड	.. HQ ..	2343; 6316; 1208; 808	Murbad; ..
Nadhai; MRD. नवई	.. NE 3-0	824; 487; 85; 225	Murbad; 3-0
Nagaon; MRD. नागांव	.. NE 10-0	1805; 1208; 200; 492	Malgaon; ..
Nandeni; MRD. नांदेणी	.. W 5-0	428; 213; 35; 108	.. ..
Nandgaon; MRD. नांदगांव	.. NE ..	586; 325; 54; 159	Saralgaon; 2-0
Nariwali; MRD. नारीवली	.. SE 16-0	1432; 1030; 185; 429	Murbad; 16-0
Nhave; MRD. न्हावे	.. SE ..	1096; 826; 144; 277	Murbad; 5-0
Nyahadi; MRD. न्याहाडी	.. NE ..	2357; 450; 103; 206	Dhasai; 12-0
Ojiwale; MRD. ओजीवले	.. E ..	523; 259; 40; 121	Dhasai; 2-0
Padale; MRD. पाडाळे	.. SE ..	760; 323; 53; 106	Dhasai; 4-0
Palaskhal; MRD. पळसखळ	.. SW 5-0	587; 72; 13; 46	Murbad; 5-0
Palu; MRD. पळू	.. E 20-0	5122; 1099; 181; 483	Dhasai; 4-0
Parhe; MRD. पन्हे	.. E ..	774; 386; 69; 171	Khedale; 1-0
Patgaon; MRD. पाटगांव	.. SE ..	2711; 1266; 271; 586	Mhasa; 4-0
Pawale; MRD. पवाळे	.. NE 5-0	3538; 1097; 219; 536	.. ..
Pendhari; MRD. पेंढरी	.. NE ..	1511; 582; 101; 257	Local; ..
Pimpalghar; MRD. पिंपळघर	.. E 15-0	159; 84; 18; 40	Dhasai; 1-0
Potgaon; MRD. पोटागांव	.. W 5-0	1194; 429; 85; 209	Murbad; 5-0
Rao; MRD. राव	.. SE 6-0	1025; 369; 67; 117	Murbad; 6-0
Sajai; MRD. साजई	.. E ..	1256; 704; 103; 365	.. 2-0
Sakhare; MRD. साखरे	.. NE 13-0	1830; 943; 151; 434	Sayale; 2-0
Sakurli; MRD. साकुरली	.. SE ..	859; 374; 61; 182	Murbad; 12-0
Saralgaon; MRD. सरळगाव	.. NE 8-0	1661; 1757; 305; 533	Saralgaon; ..
Sasane; MRD. सासणे	.. SE ..	806; 367; 69; 136	Murbad; 5-0
Sawarne; MRD. सावरणे	.. NE 36-0	1968; 136; 25; 77	Dhasai; 20-0
Sayale; MRD. सायले	.. NE 12-0	1317; 1000; 150; 415	Local; ..
Shai; MRD. शाई	.. NE 27-0	378; 320; 61; 123	.. ..
Shedali; MRD. शेडाली	.. SE 7-0	526; 441; 79; 169	Murbad; 7-0
Shelgaon; MRD. शेळगाव	.. NE ..	786; 352; 63; 109	.. ..
Shidgad; MRD. शिदगड	.. SE ..	3199; 177; 27; 65	Mhasa; 4-0
Shiland; MRD. शिळंद	.. SW 7-0	1141; 328; 74; 136	Murbad; 7-0
Shirgaon; MRD. शिरगाव	.. NW 5-0	1205; 561; 96; 249	Murbad; 5-0
Shiroshi; MRD. शिरोशी	.. NE ..	2326; 911; 176; 279	Local; ..
Shirwali; MRD. शिरवली	.. S ..	1970; 714; 159; 193	Murbad; 4-0
Shivale; MRD. शिवळे	.. NE 5-4	1792; 1377; 246; 403	Murbad; 5-0
Sonawale; MRD. सोनावळे	.. E 2-0	4019; 1691; 302; 841	Dhasai; 4-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Kalyan; 21-0	Murbad; 5-0; Fri.	.. ..	W.	Sl (pr); tl.
Kalyan; 44-0	Dhasai; 12-0; Mon.	Tokawada; 8-0	W.	Sl (pr); Ct. Sud 15; tl.
Kalyan; 18-0	Murbad; .. Fri.	Stage; ..	t; w.	4Sl (2 pr; m; h); 3 Cs; Devi Fr. Ct. (Amavasya) tl; mq; dg; dh; gym; ch; lib; 5 dp.
Shahad; 24-0	Murbad; 3-0; Fri.	.. 2-0	W.	Sl (pr); Ct Sud 15; tl.
Kalyan; 30-0	Saralgaon; 2-0; Tue.	.. 0-2	W.	Sl (pr); 2 tl.
Kalyan; 20-0	Murbad; 5-0; Fri.	.. 2-0	..	Sl (pr); tl. ch; lib.
Kalyan; 30-0	Saralgaon; 2-0; Tue.	.. 1-2	W.	Sl (pr); Cs; tl; Ct; Sud
Kalyan; 35-0	Murbad; 16-0; Fri.	Mhasaye; 8-0	W.	15 Sl (pr; m; h); Cs; tl.
Kalyan; 44-0	Dhasai; 12-0; Mon.	Tokawade; ..	W; rv.	2Sl (pr); Mrg. Purnima; tl.
Kalyan; 32-0	Dhasai; 2-0; Mon.	Dhasai; 2-0	W; rv.	Sl (pr); tl.
Kalyan; 34-0	Dhasai; 4-0; Mon.	.. 3-0	W; rv.	Sl (pr); Cs; tl; dg.
Kalyan; ..	Murbad; 5-0; Fri.	Murbad; 5-0	W.	..
Kalyan; 44-0	Dhasai; 4-0; Mon.	..	W.	Sl (pr); tl.
Kalyan; 33-0	Dhasai; 2-0; Mon.	Ojiwale; 3-0	W.	Sl (pr); Fr. Vsk. Sud. 7; tl.
Kalyan; 30-0	Murbad; 12-0; Fri.	Stage; ..	W.	Sl (pr); Cs; tl.
.. 25-0	Murbad; .. Fri.	.. ..	W.	2 Sl (pr); 2 tl.
Kalyan; 39-0	Dhasai; 5-0; Mon.	.. 1-0	W; rv.	Ct. Sud. Fri. 15.
Kalyan; 34-0	Dhasai; 1-0; Mon.	Ojiwale; 9-0	W; rv.	Ct. Sud 9; 2 tl; m.
Badlapur; 7-0	Murbad; 5-0; Fri.	.. 0-1	W.	Sl (pr); 2 tl.
Kalyan; 25-0	Saralgaon; 8-0; Tue.	.. 1-0	W.	Sl (pr); 2 tl.
Kalyan; 19-0	Murbad; 2-0; Fri.	.. ..	W.	Sl (pr); Ct. Fr.; tl.
Kalyan; 32-0	Saralgaon; 5-0; Tue.	.. 3-0	W.	Sl (pr); Cs.; tl.
Kalyan; 31-0	Murbad; 12-0; Fri.	Mhasa; 4-0	..	Sl (pr); Cs; tl.
Kalyan; 28-0	.. ..	Stage; ..	W; Pl.	Sl (pr;m;h); Cs; 2tl; lib.
Kalyan; 25-0	Murbad; 6-0; Fri.	Stage; ..	W.	Sl (pr); m; Cs; 3 tl.
Kalyan; 52-0	Dhasai; 24-0; Mon.	Toka- 16-0	W.	Sl (pr); Ct; Sud. dp; 1tl.
..	..	wade;	..	..
Kalyan; 32-0	Saralgaon; 6-0; Tue.	Stage; ..	W; t.	2Sl (pr); Cs; 2 tl.
Kalyan; 43-0	Dhasai; 13-0; Mon.	.. 2-0	W.	Sl (pr); Cs; 2 tl.
Kalyan; 28-0	Saralgaon; 5-0; Tue.	Shirawali; 3-0	W; w.	Sl (pr); tl.
Kalyan; 43-0	Dhasai; 13-0; Mon.	.. ..	W.	Sl (pr); Cs; 2 tl.
Kalyan; 35-0	.. ..	.. 3-0	W.	Sl (pr); Cs; tl.
..	.. ..	Murbad; 6-0	W; rv.	Sl (pr); tl.
Kalyan; 21-0	Murbad; 5-0; Fri.	Murbad; 5-0	W.	Sl (pr); tl.
Kalyan; 45-0	Dhasai; 11-0; Mon.	Stage; ..	W; pl.	Sl (pr; m; h); Cs; tl; lib; dp.
Kalyan; 19-0	Murbad; 4-0; Fri.	Shiwale; 2-0	W; n.	Sl (pr); tl.
Kalyan; 25-0	Saralgaon; 2-4; Tue.	.. 0-1	W.	3 Sl (pr); Cs; Fr. Ct. Sud. 15; 5 tl; lib; dp.
Kalyan; 40-0	Dhasai; 4-0; Mon.	Dhasai; 4-0	W.	Sl (pr); Fr. Ct. Sud 9; 3tl; lib.

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural population	Post Office; Distance
1	2	3	4
Talawali, (Baragaon); MRD. तळवली (बारगाव)	NE ..	974; 630; 117; 171	Local; ..
Talwali Tarf Ghorat; MRD. तळवली तर्फ घोरट	E ..	973; 623; 112; 279	Tokawade; ..
Tale; MRD. तळे	S 6-4	573; 113; 24; 63	Murbad; 6-4
Talegaon; MRD. तळेगाव	NE 27-0	5659; 1481; 324; 550	Shiroshi; 2-0
Talekhal; MRD. तळेखल	SE 16-0	241; 314; 57; 131	Maja- gaon; 5-0
Tembhare Bk.; MRD. टेम्हारे बुद्रुक	NE 4-0	1294; 480; 80; 202	Murbad; 4-0
Tembhare Kh.; MRD. टेम्हारे खु.	SW 5-0	484; 371; 60; 201	Murbad; 5-0
Temgaon; MRD. टेमगाव	NW 2-0	374; 165; 28; 85	Murbad; 2-0
Thitabi Tarf Vaishakhare; MRD. थितबी तर्फ वैशाखरे	NE ..	3242; 205; 33; 75	Dhasai; 21-0
Thune; MRD. ठुने	E ..	532; 387; 70; 148	Majgaon; 1-0
Tokawade; MRD. टोकावडे	NE ..	271; 594; 107; 201	Local; ..
Tondali; MRD. तोंडली	SE ..	1329; 622; 109; 215	Murbad; 7-0
Tulai; MRD. तुलई	SE ..	529; 631; 112; 240	Local; ..
Uchale; MRD. उचले	SE 19-0	1333; 510; 80; 270	Murbad; 19-0
Umaroli Kh.; MRD. उमरोळी खुर्द	SE ..	2053; 533; 108; 187	Dhasai; 4-0
Umaroli Bk.; MRD. उमरोळी बुद्रुक	.. ..	431; 521; 90; 293	Dhasai; 3-0
Umbarpe Dehari; MRD. उंबरपे देहरी	SE ..	901; 382; 90; 142	.. ..
Vadu; MRD. वडू	NW 9	208; 71; 13; 22	Murbad; 9-0
Vehare; MRD. वेहरे	S 16-0	594; 183; 33; 105	Majagon; 5-0
Veluk; MRD. वेळुक	NE ..	768; 757; 125; 261	.. 4-0
Vidhe; MRD. विडे	SE ..	1666; 692; 132; 217	Murbad; 7-0
Wadawali; MRD. वडवली	NE 9-0	1038; 838; 135; 400	Saialgaon; 1-0
Waghiwali; MRD. वाघिवली	NW 7-0	1501; 758; 117; 306	Murbad; 7-0
Waishakhare; MRD. वैशाखरे	NE ..	2836; 1211; 182; 469	Local; ..
Walhivare; MRD. वाल्हीवरे	NE ..	7917; 687; 146; 439	Dhasai; 21-0
Wanjale; MRD. वांजळे	NW 2-4	462; 458; 82; 195	Murbad; 2-4
Wanote; MRD. वानोटे	NE 26-4	262; 121; 26; 26	Shiroshi; 2-0
Zadghar; MRD. झाडघर	NE 20-0	1966; 811; 156; 455	Dhasai; 5-0
PALGHAR TALUKA			
Agarwadi; PGR. अगरवाडी	S 36-0	359; 1003; 222; 344	Local;
Akoli; PGR. अकोळी	NE ..	948; 266; 52; 104	Boisar; 6-0
Akegawhan; PGR. अकेगव्हाण	NE ..	638; 274; 51; 152	Boisar; 9-0
Akkarpatti; PGR. अक्करपट्टी	NW 12-0	2934; 6286; 1116; 573	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Kalyan; 30-0	Dhasai; .. Mon.	Majgaon; 2-0	W; w.	Sl (pr); Cs; tl.
Kalyan; ..	Dhasai; 3-0; Mon.	.. 3-0	W.	3 tl.
..	Murbad; 6-4; Fri.	Murbad; 6-4	W.	Sl (pr).
..	.. ..	Local; ..	W.	Sl (pr); 3 tl.
Shahad; 34-0	.. 1-0; ..	.. 5-0	W.	Sl (pr); tl; 2 dg.
Shahad; 25-0	.. .. Fri.	.. ..	W.	Sl (pr); tl.
..	Murbad; 5-0; ..	Murbad; 5-0	W.	Sl (pr); tl.
Kalyan; 21-0	Murbad; 2-0; Fri.	Murbad; 2-0	W.	Sl (pr); Cs; tl.
Kalyan; 53-0	Dhasai; 25-0; Mon.	Toka- 17-0	W.	....
Kalyan; 31-0	Saralgaon; 3-0; Tue.	.. 1-0	W.	Sl (pr); Cs; tl.
Kalyan; 36-0	Dhasai; 5-0; Mon.	Stage; ..	W.	Sl (pr); Cs.; Ct. Sud-15; tl; lib.
Kalyan; 27-0	Murbad; 7-0; Fri.	.. 3-0	W; rv.	Sl (pr); Cs; tl.
Kalyan; 30-0	Saralgaon; 8-0; Tue.	Stage; ..	W; Pl.	Sl (pr, m); Cs; tl; lib; dp.
Kalyan; 38-0	Saralgaon; 11-0; Tue.	Majgaon; 6-0	W.	Sl (pr); Cs; tl.
Kalyan; 40-0	Dhasai; 4-0; Mon.	Dhasai; 4-0	W.	Sl (pr).
Kalyan; 32-0	Dhasai; 3-0; Mon.	Stage; ..	W.	Sl (pr); Mrg. 15; tl; dg.
..
Kalyan; 20-0	Murbad; 9-0; Fri.	.. ..	W.	Sl (pr); Cs; tl.
Shahad; 34-0	Vehare; .. Sun.	.. 5-0	W.	Mg. Purnima; 3 tl; m; Fr. dg; dp.
Kalyan; 45-0	Dhasai; 15-0; Mon.	Stage; ..	W; rv.	Sl (pr); Cs; 2 tl.
Kalyan; ..	Saralgaon; 6-0; Tue.	Shiple ; 5-0	W.	Sl (pr); Cs.
Kalyan; 29-0	Saralgaon; 1-0; Tue.	Saralgaon; 1-0	W.	Sl (pr); tl.
Kalyan; 20-0	Murbad; 7-0; Fri.	.. 4-0	..	Sl (pr); tl.
Kalyan; 38-0	Dhasai; 4-0; ..	Stage; ..	W.	Sl (pr); Ct. Sud. 15; tl; ch; lib; dp.
Kalyan; 55-0	.. ..	.. ..	W.	3 Sl (pr).
Kalyan; 17-0	Murbad; 2-4; Fri.	.. ..	W; rv.	Sl (pr); Cs; tl; dg; lib.
Kalyan; 47-0	Dhasai; 13-0; Mon.	.. ..	W.	Sl (pr); tl.
Kalyan; 42-0	Dhasai; 5-0; Mon.	.. 2-0	W.	3 Sl (pr); Cs; tl.
Saphale; 3-0	Saphala; 3-0; Mon.	Local; ..	W.	3Sl (pr, m, h); Cs; tl; lib.; 4 dp.
Boisar; 6-0	Betegaon; .. Thu.	.. 3-0	W.	Sl (pr); tl.
Boisar; 9-0	Betegaon; 8-0; Thu.	.. 4-0	W; rv.	Sl (pr); tl.
Boisar; 7-0	.. .. daily.	Local; ..	W.	2 Sl (pr); ch; lib.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Alewadi; PGR. आलेवाडी	.. NW ..	294; 541; 70; 153	1-0
Alyali; PGR. अल्याली	.. W 2-0	702; 654; 114; 216	Palghar; 2-0
Ambadi; PGR. अंबाडी	.. E 2-0	513; 241; 51; 139	Palghar; 2-0
Ambedhe; PGR. अंबेधे	.. NE 27-0	1667; 414; 51; 156	15-0
Ambhan; PGR. अंभान	.. E ..	255; 242; 41; 170	..
Awadhan; PGR. अवढान	.. NE 13-4	1060; 810; 150; 369	Manor; 2-4
Bahadoli; PGR. बहाडोली	.. SE 11-0	736; 922; 168; 342	Dahisar 1.0
Bandate; PGR. बंदाटे	.. S 9-0	249; 215; 43; 93	Tarf Manor; Kelwa; 6-0
Bandhan; PGR. बांधण	.. NE ..	333; 277; 61; 181	..
Bangarchole; PGR. बांगार चोळे	.. E ..	447; 233; 36; 118	..
Barhanpur; PGR. बरहणपूर	.. NE 26-0	2507; 1110; 202; 351	Manor; 14-0
Betegaon; PGR. बेटेगाव	.. N ..	1675; 922; 179; 370	..
Bhadave; PGR. भादवे	.. S 25-5	485; 750; 135; 380	2-4
Bhopoli; PGR. भोपोली	.. NE 18-4	926; 525; 96; 272	Manor; 6-0
Birwadi; PGR. बिरवाडी	.. N 6-0	315; 770; 129; 249	Umroli; 2-2
Boisar; PGR. बोयसर	.. N 5-0	2229; 3514; 643; 879	Local; ..
Borande; PGR. बोरान्डे	.. NE ..	1113; 604; 94; 316	..
Borsheti; PGR. बोरशेती	.. NE 15-0	1334; 738; 138; 385	Boisar; 8.0
Bot; PGR. बोट	.. SE ..	507; 438; 68; 268	..
Chahade; PGR. चहाडे	.. E 7-4	666; 997; 187; 454	Palghar; 7.4
Chari Bk.; PGR. चरी बुद्रुक	.. NE 20-0	352; 185; 27; 114	Manor; 8-0
Chari Kh.; PGR. चरी खुर्द	.. NE 13-3	432; 222; 39; 130	Manor; 4-0
Chatale; PGR. चटाले	.. S 20-0	2757; 1088; 282; 224	Agarwadi; 3-0
Chilhar; PGR. चिल्हार	.. NE 14-4	1290; 505; 87; 150	Manor; 3-0
Chinchare; PGR. चिंचारे	.. NE ..	806; 389; 64; 210	Boisar; 8-0
Dahisar Tarf Mahim; PGR. दहीसर तर्फ माहिम	.. S 23-0	280; 266; 50; 90	Saphala; 5-0
Dahisar Tarf Manor; PGR. दहीसर तर्फ मनोर	.. SE ..	997; 1188; 214; 412	..
Dahisar Tarf Tarapur; PGR. दहीसर तर्फ तारापूर	.. N ..	1439; 1381; 267; 655	Local; ..
Dahlwale; PGR. दहीवाळे	.. SE 17-0	271; 320; 49; 148	0-4
Damkhand; PGR. दामखंड	.. NE ..	282; 238; 51; 114	..
Dapoli; PGR. दापोली	.. N 5-0	1018; 951; 153; 367	Umroli; 1-0
Darshet; PGR. दारशेत	.. SE 22-0	144; 421; 84; 251	Panrgaon; 5-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Boisar; 2-4	Betegaon; .. Thu.	Local; ..	W.	Sl (pr); tl; dg.
Palghar; 2-0	Palghar; 2-0; Fri.	Palghar; 2-0	W.	Sl (pr); tl.
Palghar; 2-0	Palghar; 2-0; Fri.	Palghar; 2-0	W.	Sl (pr).
Palghar; 27-0	Manor; 14-0; Sat.	Barhanpur; 2-0	W; rv.	Sl (pr).
..
Palghar; 13-4	Manor; 2-4; Sat.	Local; ..	W.	Sl (pr); tl.
Palghar; 11-0	Palghar; 11-0; Fri.	Local; ..	W.	Sl (pr); Cs; Fr. Ct. Vad. 12; tl.
Kelwe Road; 1-0	Palghar; 9-0; Fri.	Kelwa Road; 1-0	W.	Sl (pr).
Palghar; 26-0	Manor; 14-0; Sat.	Local; ..	W.	Sl (pr); 2 tl.
Saphale; 9-0	Saphala; 9-0; Mon.	.. 0-5	W.	Sl (pr); Cs; Fr. Vsk. Sud. 15; 2 tl.
Palghar; 18-4	Manor; 7-0; Sat.	Local; ..	W.	2 Sl (pr, m); tl.
Boisar; 3-2	Palghar; 6-0; Fri.	.. 0-4	W.	Sl (pr).
Local; ..	Local; 1-4; ..	Local; ..	W.	3 Sl (2pr, m); dh; lib; tl.
Boisar; 8-0	Betegaon; 6-4; Thu.	.. 3-0	W.	Sl (pr); tl.
Palghar; 7-4	Palghar; 7-4; Fri.	.. 1-0	W.	Sl (pr); Cs; gym; tl.
Palghar; 20-0	Manor; 8-0; Sat.	Chinehghar; 1-0	rv.	
Boisar; 8-0	Manor; 4-0; Sat.	.. ..	W.	
Saphale; 5-0	Saphala; 5-0; Mon.	Stage; 0-2	W; t.	Sl (pr); Cs; Hanuman Jayanti. Ct. Sud. Pournima; tl; lib.
Boisar; 11-0	Manor; 3-0; Sat.	.. ..	W.	Sl (pr); tl.
Boisar; 8-0	Betegaon; 7-0; Thu.	.. 3-0	W; rv.	tl.
Saphale; 5-0	Saphala; 5-0; Mon.	Local; ..	W.	Sl (pr);
Boisar; 5-0	Vangaon; 3-0; Sun.	Local; ..	pl.	2 Sl (2 pr); tl; ch; lib.
Saphale; 9-0	Saphala; 9-0; Mon.	Saphala; 9-0	W.	Sl (pr); Mahashivaratri Fr; tl.
Palghar; 5-0	Palghar; 8-0; Fri.	.. ..	W.	2 Sl (2 pr); Cs.
Saphale; 9-0	Saphala; 9-0; Mon.	Saphala; 9-0	W.	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Datiware; PGR. डातीवरे ..	S 25-0	5247; 4152; 705; 806	Local; ..
Devkhope; PGR. देवखोपे ..	NE 3-6	1745; 1029; 176; 437	Palghar; 3-6
Dhansar; PGR. धनसार ..	W 4-0	826; 854; 146; 270	Palghar; 4-0
Dhekale; PGR. डेकाले ..	SE 25-0	1950; 434; 152; 266	Local; ..
Dhuktan; PGR. धुकटण ..	E 16-0	1961; 1618; 276; 715	Gowade; 2-0
Dengare; PGR. डोंगरे ..	S	538; 481; 83; 116	Edwan; 2-4
Durves; PGR. दुर्वेस ..	E 15-0	2306; 1010; 172; 508	Local; ..
Edwan; PGR. एडवण ..	SW 25-0	492; 2740; 508; 187	Local; ..
Embur-Irambi; PGR. अंबूर-ऐरंबी ..	SE 22-0	2065; 793; 130; 422	Durves; 6-0
Ganje; PGE. गांजे ..	SE 27-0	2984; 706; 116; 344	Dhekale; 2-0
Gargaon; PGR. गारगाव ..	NE 13-0	1025; 341; 61; 117	Boisar; 6-0
Ghanede; PGR. घाणेडे ..	NE 12-4	819; 353; 62; 137	Manor; 10-0
Ghaneghar; PGR. घाणेघर ..	NE 18-0	2910; 627; 118; 317	Manor; 6-0
Ghiwali; PGR. घिवली ..	NW 16-0	1670; 2066; 417; 164	Local; ..
Girale; PGR. गिराले ..	SE 19-0	940; 730; 128; 396	Pargaon; 0-4
Girnoli; PGR. गिरनोळी ..	NE 12-4	1492; 734; 128; 344	Palghar; 12-4
Gowade; PGR. गोवाडे ..	E 9-0	1045; 530; 83; 280	Local; ..
Gundali; PGR. गुंदळी ..	NW ..	516; 238; 27; 86	.. 1-4
Gundave; PGR. गुंदावे ..	SE ..	762; 290; 47; 155	.. ..
Haloli; PGR. हाळोली ..	SE ..	2784; 975; 144; 347	.. ..
Jalsar; PGR. जळसार ..	S 18-0	2343; 1029; 163; 469	Umbar- 6-0 pada;
Jansai; PGR. जानसई ..	SE 41-0	147; 78; 13; 30	Dhekale; 0-1
Jayshet; PGR. जायशेत ..	SE 30-0	5811; 318; 51; ..	Dhekale; 5-0
Kallale; PGR. कल्लाले ..	N ..	523; 362; 60; 156	.. ..
Kamare; PGR. कमारे ..	SE 3-0	1697; 943; 195; 351	Palghar; 3-0
Kambalgaon; PGR. कांबळगाव ..	N ..	271; 108; 19; 34	.. ..
Kandarwan; PGR. कांदरवण ..	SE 14-0	449; 24; 4; 13	.. 0-4
Kandrebhure; PGR. कांद्रेभुरे ..	SE 32-0	1258; 628; 105; 347	Saphala; 5-0
Karalgaon; PGR. करळगाव ..	E 14-0	830; 535; 80; 272	Hamrapur; 1-4
Karsood; PGR. करसूड ..	NE 20-0	1821; 955; 164; 326	Manor; 10-0
Karwale; PGR. करवाल्ले ..	SE ..	1560; 655; 128; 283	.. ..
Katale; PGR. काताल्ले ..	NE 11-0	941; 782; 132; 407	Maswan; 1-4
Kelwa; PGR. केळवा ..	S 12-6	9933; 7710; 1431; 2175	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Saphale; 15-0	Saphala; 15-0; Mon.	Local; ..	W.	3 SI(pr,m); 2Cs.; Gudi-padwa Fr. Ct. Sud. 1; Ramnawmi Fr. Ct. Sud. 9; Devi Fr. Ct. Vad. 5; 3 tl; dh; lib; 3 dp.
Palghar; 3-6	Palghar; 3-6; Fri.	Shewale; 2-0	W.	S (pr); tl.
Palghar; 4-0	Palghar; 4-0; Fri.	Stage; 0-2	W.	SI (pr); tl.
Palghar; 25-0	Manor; 13-0; Sat.	Local; ..	W.	SI (pr); Cs.
Palghar; 16-0	Manor; 5-0; Sat.	Local; ..	W.	SI (pr); Cs; tl; ch; Cch.
Saphale; 19-0	Saphala; 19-0; Mon.	.. 0-7	W.	SI (pr).
Palghar; 15-0	Manor; 3-0; Sat.	Local; ..	W.	SI (pr); Cs; 2 tl; ch.
Saphale; 5-0	Saphala; 5-1; Mon.	Local; ..	W.	2 SI (pr, m); 2 Cs; Ramnavami Fr. Ct. Sud. 9; lib.; 5 dp.
Palghar; 22-0	Manor; 9-0; Sat.	Durves; 6-0	W.	SI (pr); tl.
Palghar; 27-0	Manor; 15-0; Sat.	Dhekale; 2-0	W.	SI (pr).
Boisar; 6-0	Betegac n; 5-0; Thu.	.. 3-0	W.	SI (pr); tl.
Palghar; 12-4	Manor; 10-0; Sat.	Manor; ..	W.	
Palghar; 18-0	Manor; 6-0; Sat.	Borande; 1-0	W.	SI (pr); tl.
Boisar; 8-0	Vangaon; 8-0; Sun.	.. 2-0	W.	SI (pr); Hanuman Jayanti Fr. Ct.; tl.
Saphale; 6-0	Saphala; 6-0; Mon.	.. 2-0	W.	SI (pr); tl.
Palghar; 12-4	Palghar; 12-4; Fri.	.. 5-4	W.	SI (pr); Cs; tl; gym.
Palghar; 9-0	Manor; 4-0; Sat.	Local; ..	W.	SI (pr); Cs; Gavdevi Fr. Vsk. Sud. 12; tl; ch.
Boisar; 2-4	.. 1-4; ..	.. ..	..	SI (pr).
..
..
Saphale; 6-0	Saphala; 6-0; Mon.	Local; ..	W.	SI (pr); tl.
Palghar; 41-0	Satiwali; .. ..	.. ..	W.	ch.
Palghar; 30-0	Manor; 18-0; Sat.	Dhekale; 5-0	W.	SI (pr).
..
Palghar; 3-0	Palghar; 3-0; Fri.	Palghar; 3-0	W.	SI (pr).
..
Saphale; 6-0	Saphala; 6-0; Mon.	Saphala; 6-0	W.	....
Saphale; 5-0	Saphala; 5-0; Mon.	.. 2-0	W.	SI (pr); Cs; 2 tl.
Palghar; 14-0	Manor; 2-4; Sat.	Stage; ..	W.	SI (pr); Cs; tl; ch.
Palghar; 20-0	Manor; 10-0; Sat.	Somate; 1-4	W.	SI (pr); tl.
..
Palghar; 11-0	Manor; 6-0; Sat.	Local; ..	W.	SI (pr); Ct. Sud. Eka-dashi Fr; 2 tl; lib.
Kelwe Rd., 4-0	Local; .. Daily	Local; ..	W.	6 SI (5pr, h); 4 Cs; Shri Shitaladvi Fr. 6tl; dg; ch; 2 lib; 3 dp; Cch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kev; PGR. केव	.. E 16-0	1728; 1042; 151; 314	Manor; 3-0
Khadkawane; PGR. खडकावणे	.. NE ..	1718; 134; 19; 37	.. ..
Khadkoli; PGR. खडकोली	.. SE 11-0	932; 844; 149; 433	.. 8-0
Khaire; PGR. खैरे	.. SE 41-4	954; 76; 37; 74	Dhekale; 0-2
Khamloli; PGR. खामलोली	.. SE 10-0	1437; 965; 159; 405	Dahisar 1-0 Tarf Manor;
Khaniwade; PGR. खानिवडे	.. NE 12-0	1325; 422; 74; 166	Boisar; 5-0
Kharekuran; PGR. खारिकुरण	.. NW ..	2550; 1923; 313; 625	.. ..
Kharshet; PGR. खारशेत	.. E 10-4	411; 294; 50; 100	Maswan; 1.0
Khatal; PGR. खटल	.. NE ..	305; 140; 26; 36	.. ..
Khatali; PGR. खटाळी	.. S 5-0	104; 330; 58; 87	Kelwa; 1-0
Khutad; PGR. खुताड	.. N 10-0	481; 276; 26; 111	Boisar; 2-0
Kirat; PGR. किराट	.. NE 14-0	1874; 735; 139; 253	Mahagaon; 2-0
Kokaner; PGR. कोकणेर	.. E 9-0	1031; 462; 77; 198	Palghar; 9-0
Kolawade; PGR. कोळवडे	.. N ..	837; 254; 42; 85	.. ..
Kolgaon; PGR. कोळगाव	.. N 2-4	1460; 1249; 245; 158	Umroli; 0-2
Kondgaon; PGR. कोंडगाव	.. NE 20-1	2144; 828; 147; 226	Manor; 11-0
Kondhan; PGR. कोंढाण	.. NE ..	1500; 722; 112; 478	.. ..
Kore; PGR. कोरे	.. SW 25-0	750; 1944; 320; 128	Edwan; 0-1
Kosbad; PGR. कोसबाड	.. E ..	1318; 639; 104; 168	.. ..
Kudan; PGR. कुडण	.. N 14-0	877; 1285; 203; 316	Tarapur; 2-4
Kude; PGR. कुडे	.. SE ..	1638; 550; 87; 231	.. ..
Kumbhawali; PGR. कुंभवली	.. N ..	1881; 1814; 322; 618	.. ..
Kurgaon; PGR. कुरगाव	.. N 10-4	977; 1281; 226; 562	.. ..
Loware; PGR. लोवरे	.. NE ..	1492; 746; 891; 249	.. ..
Lalonde; PGR. लालोंडे	.. NE 13-2	1300; 466; 90; 257	Mahagaon; 3-0
Lalthane; PGR. लालठाणे	.. SE 15-0	377; 478; 86; 187	Umbar- 6-4 pada;
Mahagaon; PGR. महागाव	.. NE 13-0	6214; 2840; 529; 1439	Local; ..
Mahim; PGR. माहीम	.. SW 11-1	9182; 9883; 2385; 2850	Local; ..
Makane Kapase; PGR. माकणे कपासे	.. SE 17-2	1655; 2125; 385; 972	Umbar- 2-0 pada
Makunsar; PGR. माकुणसार	.. S 15-0	2677; 2610; 430; 683	Nandade; Agarwadi; 1-0
Man; PGR. मान	.. N ..	471; 647; 119; 287	.. ..
Mande; PGR. मांडे	.. S 10-0	787; 1206; 211; 234	Virathan 1-4 Bk.;

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Palghar; 16-0	Manor; 3-0; Sat.	Manor; 2-4	W.	Sl (pr); Hanuman Jayanti Fr. Ct; tl.
Palghar; 11-0	Saphala; 8-0; Mon.	Local; 4-0	W.	Sl (pr); Cs; tl.
Palghar; 41-4	Satiwali;	Local; ..	W.	Sl (pr).
Palghar; 10-0	Manor; 1-4; Sat.	Bahadoli; 0-4	W.	Sl (pr); Cs.
Boisar; 5-0	Betegaon; 4-0; Thu.	.. 2-0	W.	....
Palghar; 10-4	Manor; 2-0; Sat.	.. ..	W.	Sl (pr); gym.
Palghar; 5-0	Palghar; 5-0; Fri.	1-0	W.	Sl (pr); Cs; mq; dh.
Boisar; 2-0	Betegaon; 5-0; Thu.	Local; ..	W.	Sl (pr).
Boisar; 5-2	Betegaon; 5-2; Thu.	1-0	W.	Sl (pr); Cs; tl.
Palghar; 9-0	Palghar; 9-0; Fri.	3-0	W.	Sl (pr); Cs; dh; gym.
Palghar; 2-4	Palghar; 2-4; Fri.	.. ..	W.	tl.
Palghar; 20-1	.. ..	.. ..	W.	Sl (pr); tl.
Saphale; 7-0	Edwan; 0-1; Sun.	Local; ..	W.	Sl (pr); Chaitra Pournima Fr; 3 tl; 3 dp.
Boisar; 6-4	Betegaon; 7 0; Thu.	Local; ..	W.	2 Sl (2 pr); Cs; 2 tl; lib.
Boisar; 5-0	Betegaon; 5-4; Thu.	Local; ..	W.	Sl (pr).
Boisar; 7-0	Betegaon; 6-0; Thu.	Local; ..	W.	Sl (pr); 2dp.
Saphale; 6-4	Saphala; 6-4; Mon.	Tandulwadi; 1-0	W.	Sl (pr); tl.
Boisar; 5-0	Betegaon; 4 0; Thu.	Local; ..	W.	5 Sl (5 pr); pyt; Cs; 6 tl; lib.
Palghar; 11-1	Local; .. Daily	.. ..	W.	5Sl (3 pr, m, h); 5 Cs; Ramnavami Fr. Ct. Sud. 9; 15tl; 2 mq; ch; lib; dp.
Saphale; ..	Umbarpada Nandade; 2-0; Sat.	Umbarpada Nandade; 2-0	W.	2 Sl (2 pr); Cs; tl.
Saphale; 3-0	Saphala; 3-0; Mon.	Local; ..	W.	3Sl (2pr, m); Cs; Datta Jayanti; 2tl;
Saphale; 1-4	Saphala; 1-4; Mon.	Stage; 0-1	W.	2 Sl (2 pr); Cs; Fr. Vsk. Sud. 11 & 15; 2 tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Manjurli; PGR. मांजुरली	S 20-0	281; 70; 9; 10	Virathan 1-0 Kh.;
Manor; PGR. मनोर	E 11-1	1743; 3988; 685; 654	Local; ..
Maswan; PGR. मासवण	E 8-2	1055; 1150; 228; 373	Local; ..
Mathane; PGR. मथाणे	SW 12-0	778; 592; 126; 146	Edwan; 0-1
Maykhop; PGR. मायखोप	SW 9-0	925; 1313; 216; 573	Kelwa; 8-0
Mendhwan; PGR. मेंढवण	NE 24-0	1878; 286; 36; 79	Manor; 12-0
Morekuran; PGR. मोरेकुरण	N ..	1102; 691; 118; 121	.. ..
Murabe; PGR. मुरवे	NW 9-6	839; 4385; 731; 231	Local; ..
Nagawe; PGR. नगावे	S 9-0	674; 757; 131; 266	Agarwadi; 0-2
Nagawe Tarf Manor; PGR. नगावे तर्फ मनोर	SE 19-4	486; 95; 15; 52	Saphala; 6-0
Nagzari; PGR. नागझरी	NE 15-0	717; 305; 55; 174	Mahagaon; 4-0
Nalshet; PGR. नालशेत	E 15-0	359; 285; 53; 168	Manor; 3-0
Nandgaon Tarf Manor; PGR. नांदगाव तर्फ मनोर	E 12-4	967; 520; 104; 132	Manor; 1-0
Nandgaon Tarf Tarapur; PGR. नांदगाव तर्फ तारापूर	NW ..	1233; 1709; 238; 437	Local; ..
Nandore; PGR. नंदोरे	N 3-0	2010; 1199; 216; 393	Palghar; 3-0
Naniwali; PGR. नानीवली	NE 19-0	3486; 1279; 215; 394	.. ..
Navghar (Ghatim) PGR. नवघर (घाटीम)	SE 16-0	1679; 1104; 219; 484	.. 0-4
Navaze; PGR. नावझे	SE 24-0	1016; 1068; 172; 556	.. 5-0
Nawali; PGR. नावली	E ..	1335; 2505; 478; 561	.. ..
Netali; PGR. नेटाली	E 10-2	217; 189; 25; 104	Manor; 0-4
Newale; PGR. नेवाळे	N 12-0	2279; 907; 161; 522	.. 3-0
Nihe; PGR. निहे	NE ..	1532; 898; 152; 414	.. ..
Padghe; PGR. पडघे	N 6-2	2253; 1037; 186; 483	Umroli; 0-5
Palghar Urban Area X; PGR. पालघर नागरी विभाग १०	HQ ..	523; 10554; 1861; 899	.. ..
Pamtembhi; PGR. पामटेंभी	NW 13-0	2099; 3809; 643; 639	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Saphale; 3-0	Saphala; 3-0; Mon.	.. 2-0	W.	....
Palghar; 11-1	Local; .. Sat.	Local; ..	W.	2 Sl (pr, m); Cs; Hanuman Jayanti Fr. Ct. Vad. 1; 2 tl; mq; oh; lib; 5dp.
Palghar; 8-2	Manor; 5-0; Sat.	Local; ..	W.	2 Sl (pr, m); Cs; tl; ch; dp.
Saphale; 9-0	Saphala; 9-0; Mon.	Edwan; 0-1	W.	Sl (pr); tl.
Kelve Rd; 1-9	Palghar; 9-0; Fri.	.. 1-0	W.	Sl (pr); Hanuman Jayanti Fr.; tl; ch; lib.
Palghar; 24-0	Manor; 12-0; Sat.	Local; ..	W.	2 Sl (pr); Cs.
..
.. 9-6	Local; .. Daily.	.. 0-2	W.	3Sl (pr,m); Cs; (1) Ramnaumi Fr.Ct. Hanuman Jayanti Fr. Ct. Sud. 15; 4 tl; mq; 2 dp.
Saphale; 3-0	Saphala; 3-0; Mon.	.. ..	W.	Sl (pr); tl.
Saphale; 6-0	Saphala; 6-0; Mon.	.. 2-0	W.	....
Boisar; 7-0	Betegaon; 6-0; Thu.	Local; ..	W.	Sl (pr).
Palghar; 15-0	Manor; 3-0; Sat.	Manor; 2-4	W.	....
Palghar; 12-4	Manor; 1-0; Sat.	Local; ..	W.	Sl (pr).
Boisar; 3-0	Betegaon; 3-0; Thu.	Local; ..	W.	Sl (pr); Cs; Ramnavami Fr; 2 tl; ch; lib; dp.
Palghar; 3-0	Palghar; 3-0; Fri.	Veur; 2-0	W.	Sl (pr); Cs (mp); tl; ch.
Palghar; 19-0	Manor; 10-0; Sat.	.. 6-0	W.	Sl (pr).
Saphale; 7-0	Saphala; 7-0; Mon.	Saphala; 7-0	W.	Sl (pr); Cs; Mahashivaratri Fr; 2tl.
Saphale; 11-0	Saphala; 11-0; Mon.	.. ..	W.	Sl (pr); Cs; lib.
..
Palghar; 6-4	Manor; 0-4; Sat.	Stage; ..	W.	tl.
Boisar; 3-0	Betegaon; .. Thu.	.. 3-0	W.	2 Sl (2 pr).
..
Boisar; 3-4	Palghar; 6-2; Fri.	Umroli; 0-7	W.	Sl (pr)
..
Boisar; 5-0	Betegaon; 7-0; Thu.	.. 0-3	W.	7 Sl (3pr; 2m; 2h); 2Cs. (mp); (1) Ramnavami Fr. Ct. 9; (2) Shri Datta Jayanti Fr. Mrg. Pournima; (3) Hanuman Jayanti Fr. Ct. Pournima; lib; 2dp; 3tl; 3ch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Panchali; PGR. पांचाळी ..	N ..	2247; 1495; 288; 246	Umroli; 0-2
Pargaon; PGR. पारगाव ..	SE 19-0	1926; 940; 184; 501	Local; ..
Parnali; PGR. परनाळी ..	N 16-0	1375; 1471; 256; 557	Tarapur; 2-0
Pasthal; PGR. पासथळ ..	N 10-0	708; 1781; 406; 213	Boisar; 3-0
Patharwali; PGR. पाथरवाली ..	NW 14-0	856; 629; 111; 190	Vengani; 0-4
Panand; PGR. पनंद ..	SE 8-0	601; 453; 83; 307	.. 0-4
Pochade; PGR. पोचाडे ..	E 12-0	762; 373; 72; 171	Gowade; 1-0
Pole; PGR. पोळे ..	NE 23-0	3383; 258; 50; 126	Manor; 1-0
Rothe; PGR. रोठे ..	S 9-0	20; 133; 26; 66	Kelwa; 6-0
Rawate; PGR. रावटे ..	NE ..	948; 372; 75; 188	Boisar; 6-0
Sagawe; PGR. सागावे ..	NE ..	906; 395; 73; 195	.. ..
Sakhare; PGR. साखरे ..	SE 23-0	782; 773; 156; 389	Dahisar; 3-0
Salgaon; PGR. सालगाव ..	N ..	571; 668; 192; 8	.. ..
Salwad; PGR. सालवड ..	N 10-0	1390; 884; 170; 353	Boisar; 2-4
Saphale; PGR. सफाळे ..	SE 16-1	2990; 1494; 299; 496	Umbar- pada Nandade; Boisar; 1-4
Sarawali; PGR. सरावली ..	N ..	2129; 1487; 257; 591	Boisar; 1-4
Satiwali; PGR. सातीवली ..	SE 40-0	851; 471; 93; 248	Dhekale; 0-4
Saware; PGR. सावरे ..	SE 30-0	2843; 1074; 152; 610	Durves; 8-0
Sawarkhand; PGR. सावरखंड ..	E 20-0	658; 448; 73; 200	Manor; 1-0
Saye; PGR. साये ..	E 16-0	358; 123; 25; 61	Durves; 1-0
Shelwale; PGR. शेलवाले ..	E 2-0	1097; 460; 81; 275	Palghar; 2-0
Shigaon; PGR. शिगाव ..	N 13-0	3765; 2834; 526; 1331	Boisar; 5-0
Shil; PGR. शीळ ..	E ..	680; 329; 58; 168	.. ..
Shilshet; PGR. शीळशेत ..	E 16-0	419; 322; 53; 184	Manor; 3-0
Shirgaon Urban Area IX; PGR. शिरगाव नगरी विभाग ९ ..	W 10-0	10.41; 13,881; 2,167; 917	Local; ..
Somate; PGR. सोमटे ..	NE 25-0	1621; 671; 127; 166	Manor; 13-0
Sonawe; PGR. सोनावे ..	SE 18-0	2441; 1135; 237; 318	.. 1-0
Takwahal; PGR. टाकवहाळ ..	E 19-0	262; 209; 43; 7	Manor; 1-0
Tamsai; PGR. टामसई ..	E 11-0	655; 300; 36; 163	Gowade; 1-0
Tandulwadi; PGR. तांदुळवाडी ..	SE ..	781; 1046; 210; 570	.. ..
Tarapur; PGR. तारापूर ..	NW ..	1782; 5450; 720; 647	Local; ..
Tembhode; PGR. टेम्होडे ..	W 1-2	988; 1548; 323; 382	Palghar; 1-2
Tembhikhodave; PGR. टेम्हीखोडावे ..	S 30-0	757; 1501; 243; 818	Virathan Bk; 2-0
Ten; PGR. टेन ..	E 20-0	658; 500; 108; 228	Durves; 1-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Boisar; 3-0	Betegaon; 2-0; Thu.	.. ..	W.	3 Sl (3 pr); Cs; tl; lib.
Saphale; 5-0	Saphala; 5-0; Mon.	.. 2-0	W.	Sl (pr); 3tl; mq; dg; ch.
Boisar; 3-4	Palghar; 16-0; Fri.	Stage; 0-4	W.	3 Sl (3 pr); ch.
Boisar; 5-0	.. 3-0; ..	.. 1-4	W.	Sl (pr); Cs; lib.
Boisar; 8-0	Vangaon; 9-0; Sun.	.. 1-0	W.	Sl (pr).
Saphale; 8-0	Saphala; 8-0; Mon.	.. ..	W.	Sl (pr); tl.
Palghar; 12-0	Manor; 2-4; Sat.	Tamsai; 1-0	W.	Sl (pr); Cs.
Palghar; 24-0	Manor; 3-0; Sat.	Palghar; 23-0	W.	Sl (pr).
Kelve Rd.; 1-0	Palghar; 9-0; Fri.	.. 1-0	W.	tl.
Boisar; 6-0	Betegaon; .. Thu.	.. 2-0	W.	....
..
Palghar; 23-0	.. ..	.. ..	W.	Sl (pr); tl.
..
Boisar; 4-4	4-4; ..	.. 0-4	W.	Sl (pr); tl.
Local; ..	Local; .. Mon.	Umbarpada Nandade; 1-0	W.	3 Sl (pr, m, h); tl.
Boisar; 1-4	Betegaon; 1-0; Thu.	Stage; ..	W.	2 Sl (pr, m); Hanuman Jayanti Fr. Ct. Pournima, lib; tl.
Palghar; 40-0	.. ..	Local; ..	W.	Mahashivratri Fr; tl.
Palghar; 30-0	.. 11-0; Sat.	.. 8-0	W.	Sl (pr); tl.
Palghar; 20-0	Manor; 1-0; Sat.	Manor; 1-0	W.	Sl (pr); tl.
Palghar; 16-0	Manor; 4-0; Sat.	Local; .. (stage)	W.	tl.
Palghar; 2-0	Palghar; 2-0; Fri.	.. ..	W.	Sl (pr)
Boisar; 5-0	Betegaon; 8-0; Thu.	Local; ..	W.	Sl (pr); Cs; tl.
..
Palghar; 16-0	Manor; 3-0; Sat.	Manor; 2-4	W.	Sl (pr).
Palghar; 10-0	Palghar; 10-0; Fri.	Local; ..	W.	3 Sl (2pr, m); Cs; 5tl; mg; ch; lib; 3dp.
Palghar; 25-0	Manor; 13-0; Sat.	Local; ..	W.	Sl (pr).
Saphale; 5-0	Saphala; 5-0; Mon.	.. ..	W.	Sl (pr); Cs; tl; mq.
Palghar; 19-0	Manor; 1-0; Sat.	Manor; 1-0	W.	....
Palghar; 11-0	Manor; 1-4; Sat.	Local; .. (stage)	W.	Sl (pr); Cs.
Boisar; 12-4	Local; .. Daily.	Local; ..	Pl.	6Sl (5pr, m); 2Cs; mq; gym; 2 lib; 3dp; Cch.
Palghar; 1-2	Palghar; 1-2; Fri.	Palghar; 1-2	W; Pl.	Sl (pr); Cs; Padmanabh Swami Fr. Mg. Sud. 7. tl.
Saphale; 5-0	Saphala; 5-0; Mon.	Local; ..	W; t.	Sl (pr); Cs; tl.
Palghar; 20-0	Manor; 1-0; Sat.	Manor; 1-0	W.	Sl (pr); mq.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Tighare; PGR. तिघरे ..	S 37-0	317; 800; 138; 367	Agarwadi; 1-0
Tokarale; PGR. टोकराले ..	S 4-0	501; 70; 10; 22	Palghar; 4-0
Uchavali; PGR. उचावली ..	SE ..	134; 167; 35; 119	Saphala; 6-0
Umbarpada Tarf Nandade; PGR. ..	SE ..	333; 1700; 367; 321	Local; ..
उंबरपाडा तर्फ नंदादे			
Umbarpada Tarf Manor; PGR. ..	SE 28-0	461; 258; 53; 142	.. 7-0
उंबरपाडा तर्फ मनोर			
Umroli; PGR. उमरोली ..	N 5-0	1366; 2046; 399; 673	Local; ..
Usarani; PGR. उसरणी ..	SW 11-0	731; 2185; 393; 446	Local; ..
Varkhunti; PGR. वरखुंटी ..	SW 2-0	787; 315; 63; 90	Palghar; 2-0
Vedhe; PGR. वेढे ..	NE 20-0	545; 418; 74; 253	Manor; 8-0
Vedhi; PGR. वेढी ..	S 20-0	1282; 1259; 217; 333	Virathan 3-0 Bk.;
Velgaon; PGR. वेलगांव ..	NE ..	1492; 756; 124; 308	.. ..
Vehaloli; PGR. वेहलोली ..	SE 41-0	1404; 475; 31; 75	.. ..
Vengani; PGR. वेंगनी ..	NW 13-0	853; 698; 132; 332	Local; ..
Veur; PGR. वेऊर ..	E ..	1161; 2483; 501; 457	.. ..
Vilshet; PGR. विळशेत ..	NE 20-0	1437; 467; 75; 140	Manor; 10-2
Virathan Bk.; PGR. विराथण बुद्रुक ..	S 16-0	2868; 1797; 325; 625	Local; ..
Virathan Kh.; PGR. विराथण खुर्द ..	S 10-0	611; 651; 121; 179	Virathan 2-0 Bk.
Wade; PGR. वाडे ..	NE ..	2858; 715; 172; 328	.. 1-0
Wadhiv Sarawali; PGR. वाढीव सरावळी ..	SE ..	1708; 1506; 265; 505	.. ..
Wakadi; PGR. वाकडी ..	E 10-4	113; 1421; 21; 87	Maswan; 1-0
Wandiwali; PGR. वांदिवली ..	E 10-0	362; 241; 45; 141	Maswan; 0-4
Warai; PGR. वरई ..	SE 41-0	502; 127; 29; 59	Dhekale; 0-4
Warangade; PGR. वारांगडे ..	NE ..	1075; 666; 128; 330	.. ..
Wasaroli; PGR. वसरोली ..	E 10-4	235; 89; 14; 29	Maswan; 1-0
Wawe; PGR. वावे ..	N ..	480; 455; 85; 205	.. ..
Wasare; PGR. वसरे ..	E 9-0	452; 749; 138; 356	.. 4-0
Wilangi; PGR. विळंगी ..	S 13-0	550; 1347; 248; 531	Agarwadi; 1-0
Zanjaroli; PGR. झांजरोली ..	S 9-0	1284; 439; 94; 202	Kelwa; 6-0
SHAHAPUR TALUKA			
Adiwal; SPR. आदीवली ..	E 20-0	1701; 339; 60; 166	Kharade; 3-0
Aghai; SPR. अघई ..	NW ..	3240; 1019; 64; 378	Local; ..
Ajnup; SPR. अजनुप ..	N 25-0	10933; 1828; 380; 657	Shirol; 3-0
Allyani; SPR. अल्याणी ..	SE ..	2463; 1564; 235; 832	Shahapur; 24-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Saphale; 4-0	Saphala; 4-0; Mon.	Stage; 8-0	W.	2 sl (pr); Cs; tl.
Palghar; 4-0	Palghar; 4-0; Fri.	Palghar; 4-0	W.	..
Saphale; 6-0	Saphala; 6-0; Mon.	.. ..	W.	..
Saphale; ..	Local; .. Daily.	Local; ..	W.	2 Sl (pr, m); 2 Cs; mq; dh; gym; 4 dp.
Saphale; 10-0	Saphala; 10-0; Mon.	.. ..	W.	Sl (pr).
Boisar; 3-0	Betegaon; 2-0; Thu.	Local; ..	pl.	2 Sl (pr, m); (1) Ct. Pournima Fr; (2) Kartiki Ekadashi. Fr; dp; 4 tl.
Saphale; 9-0	Saphala; 9-0; Mon.	Local; ..	W.	2 Sl (pr, m); 3 Cs; Fr on Ct. Sud. Pournima; 2 dp; 3 tl.
Palghar; 2-0	Palghar; 2-0;	Palghar; 2-0	W.	Sl (pr).
Palghar; 20-0	Manor; 8-0; Sat.	Bhopoli; 2-0	W.	Sl (pr).
Saphale; 5-0	Saphala; 5-0; Mon.	Local; ..	W; r.	Sl (pr); tl.
..
Boisar; 7-0	Vangaon; 9-0; Sun.	.. ..	W.	Sl (pr).
Palghar; 20-0	Manor; 20-0; Sat.	.. ..	W.	Sl (pr); tl.
Saphale; 3-0	Saphala; 3-0; Mon.	Local; ..	W.	Sl (pr); Cs; 2 tl; ch.
Saphale; 2-0	Saphala; 2-0; Mon.	.. ..	W.	Sl (pr); Bhanoba Fr. May; tl.
Boisar; 4-0	Vangaon; 2-4; Sun.	.. ..	W.	Sl (pr); tl.
..
Palghar; 10-4	Manor; 4-0; Sat.	Manor; 4-0	W.	..
Palghar; 9-4	Manor; 4-0; Sat.	Manor; 4-0	W.	Sl (pr); gym.
Palghar; 41-0	Sativali; 4-0 ..	.. ..	W.	Sl (pr).
..
Palghar; 10-4	Manor; 6-0; Sat.	.. ..	W.	gym.
..
Palghar; 9-0	Manor; 8-0; Sat.	.. 2-0	W.	Sl (pr); Cs; tl.
Saphale; 4-0	Saphala; 4-0; Mon.	Agarwadi; 1-0	W.	Sl (pr); Cs; lib.
Kelwa Rd; 1-0	Palghar; 9-0; Fri.	Kelwa Rd; 1-0	W.	Sl (pr).
Asangaon; 23-0	Kinhavali; 7-0; Wed.	.. ..	W; rv.	tl; Cch.
Atgaon; 11-0	Shahapur; 16-0; Mon.	Local; ..	W.	Sl (pr).
Kasara; 10-0	Kasara; 10-0; ..	Khadi; 7-0	W.	3 Sl (pr); tl.
Asangaon; 8-0	.. ..	.. ..	W.	Sl (pr); Cs; Fr. Ct. Sud. 15; 8 tl.

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural population	Post Office; Distance
1	2	3	4
Ambarje; SPR. अंबर्जे	.. S ..	1842; 1087; 207; 477	Shahapur; 20-0
Ambekhor; SPR. अंबेकोर	.. E 22-0	1846; 587; 106; 320	Kharde; 3-0
Ambivali Saja Khardi; SPR. अंबिवली सजा खर्डी	.. N ..	3510; 688; 135; 372	.. ..
Ambivali Tarf Shere; SPR. अंबिवली तर्फ शीरे	.. S 12-0	686; 242; 33; 79	Shahapur; 12-0
Andad; SPR. अंदाड	.. SE 3-0	631; 454; 79; 225	Khutghar; 1-0
Apte; SPR. आपटे	.. SE ..	2510; 777; 146; 287	.. ..
rjunali; SPR. अर्जुनली	.. NE 4-0	773; 313; 51; 163	Saralambe; 1/2
Asangaon; SPR. आसनगांव	.. SW 1-0	1767; 1771; 359; 295	Local; ..
Ashte; SPR. आष्टे	.. SE 20-0	537; 252; 44; 114	Kharade; 3-0
Asnoli; SPR. अस्नोली	.. SE 16-0	1018; 1887; 319; 772	.. 2-0
Atgaon; SPR. आटगांव	.. N 5-0	3386; 1767; 310; 471	Local; ..
Avale; SPR. आवळे	.. W 4-0	1303; 720; 131; 155	Shahapur; 2-2
Aware; SPR. आवरे	.. NE ..	6110; 767; 125; 203	Shahapur; 3-4
Babare; SPR. बाबरे	.. NE ..	2102; 435; 80; 268	Vehaloli; 5-0
Babhale; SPR. बाभळे	.. SE ..	664; 380; 53; 134	Kinhavali; 0-4
Bamane; SPR. बामणे	.. N ..	188; 210; 37; 43	.. ..
Bavaghar; SPR. बावघर	.. S 15-0	1167; 315; 56; 109	Shahapur; 13-0
Bedisgaon; SPR. बेडीसगांव	.. SE ..	1138; 438; 73; 195	Asangaon; 11-0
Belawad; SPR. बेलवड	.. N 38-0	3903; 1207; 243; 266	Vaitarna; 1-0
Belawali Tarf Jade; SPR. बेलवली तर्फ जडे	.. E 4-0	963; 327; 54; 162	Tembhurli; 1 1/2
Bendekon; SPR. बेंडेकोन	.. N 15-0	658; 178; 33; 88	Khardi; 2-0
Bhagdal; SPR. भागदल	.. SE 14-0	1248; 235; 41; 120	Shahapur; 14-0
Bhakari; SPR. भाकरी	.. SE ..	278; 22; 7; 14	.. ..
Bhatsai; SPR. भातसाई	.. SW ..	627; 670; 86; 184	Vashind; 2-0
Bhavse; SPR. भावसे	.. NW 15-0	1468; 690; 127; 183	Aghai; ..
Bhinar; SPR. भिनार	.. E 25-0	171; 137; 20; 63	Dolkhamb; ..
Bhorande; SPR. भोरांडे	.. NW ..	500; 10; 3; 5	.. ..
Birwadi; SPR. बिरवाडी	.. NE 12-0	7464; 3037; 667; 894	Local; ..
Borsheti; SPR. बोरशेती	.. S 2-0	1193; 685; 109; 376	Shahapur; 2-0
Chande; SPR. चांदे	.. NE 10-0	500; 158; 29; 78	Khardi; 2-0
Chariv; SPR. चारीव	.. E 12-0	1286; 655; 109; 186	Local; ..
Cheravali; SPR. चेरवली	.. SE 15-0	791; 538; 99; 171	.. ..
Cherpoli; SPR. चेरपोली	.. N 2-0	1002; 414; 86; 183	.. ..
Chikhalgaon; SPR. चिखलगांव	.. SE ..	2020; 840; 145; 425	Kinhavali; 2-0
Chondhe Bk.; SPR. चोंडे बुद्रुक	.. NE 30-0	2691; 738; 145; 325	Asangaon; 30-0
Chondhe kh.; SPR. चोंडे खुर्द	.. NE 25-0	1195; 242; 55; 53	Dolkhamb; 4-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
.. 7-0 Asangaon; 25-0	Shahapur; 7-0; Mon. Kinhavali; 10-0; Wed.	Vasbind; 7-0	W. W; rv.	Sl (pr); Cs; 3 tl. Sl (pr); tl.
..
Vasbind; 6-0	Shahapur; 12-0; Mon.	.. 6-0	W.	Sl (pr).
Asangaon; 3-0 Khaldi; 2-0 Asangaon; 6-0 Local; ..	Shahapur; 3-0; Wed. Asangaon; 19-0; Wed.	Sapgaon; 2-0 Kinhavali; 5-0	W. W. W. W.	Sl (pr); tl. Sl (pr); Cs; 5 tl. Cs; tl. Sl (pr); tl; dg.
.. 23-0 Asangaon; 18-0 Local; .. Asangaon; 3-0	Kinhavali; 7-0; Wed. Kinhavali; 5-0; Wed. Shahapur; 4-0; Mon. Kinhavali; 22-0; Wed.	.. .. .. 2-0 Stage; .. Asangaon; 3-0	W; rv. W; rv. W. W.	Sl (pr); tl; Cch. Sl (pr); 2 Cs; 6 tl. Sl (pr, m); 3 tl; dg; li Sl (pr); Cs; tl.
Asangaon; .. Asangaon; 17-0	Shahapur; 3-4; Mon. Kinhavali; 15-0; Wed.	Cherpoli; 1-0 .. 3-0	W; pl. W.	Sl (pr); 2 tl. Sl (pr); tl.
Asangaon; 18-0	Kinhavali; 0-4; Wed.	.. 0-4	W.	Sl (pr); Cs; 2 tl.
Vasbind; 8-0	Shahapur; 13-0; Mon.	.. 8-0	W.	Sl (pr); Cs; tl.
Kinhavali; 4-0	Local; ..	.. ..	W.	Sl (pr); Cs; tl.
Khaldi; 2-0 Asangaon; 23-0	Khaldi; 20-0; Sun. Kinhavali; 20-0; Wed.	.. 4-0 Tembhurli; 2-0	W. W.	Sl (pr); 2 tl. Sl (pr); Cs; t
Khaldi; 3-0 Asangaon; 16-0	Khaldi; 2-0; Sun. Kinhavali; 8-0; Wed.	.. .. .. 10-0	.. W.	Sl (pr); tl. Sl (pr); Cs; tl.
.. .. Vasbind; 2-0 Atgaon; 10-0 Asangaon; 25-0	.. .. Shahapur; 7-0; Mon. Shahapur; 15-0; Mon. Kinhavali; 20-0; Wed.	.. .. .. 2-0 .. 1/2 .. 1/2	.. W; rv. W. W.	.. 2 Sl (pr m); tl. Sl (pr); tl. Cs; tl.
Atgaon; 6-0 Asangaon; 2-0 Khaldi; 2-0 Asangaon; 14-0 Asangaon; 15-0 Asangaon; Asangaon; 20-0 Kinhavali; 21-0	Khaldi; 7-0; Sun. Shahapur; 2-0; Mon. Khaldi; 2 1/2; .. Kinhavali; 7-0; Wed. Kinhavali; 1-0; Wed. Shahapur; Mon. Bhardepada; 1-0; .. Dolkhamb; 5-0; ..	Stage; .. Shahapur; 2-0 1-0 Stage; 2-0	W. W. W. W, rv. W. W. W. ..	3 Sl (pr); tl ch; dp. Sl (pr); 2 tl. Sl (pr); tl. Sl (pr); tl. Sl (pr); Cs; tl. Sl (pr); tl. 3 Sl (pr); Cs; 3 tl. Sl (pr); tl.
Asangaon; 25-0	Dolkhamb; 4-0; ..	Dolk- 4-0 hamb;	W.	Sl (pr); tl.

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural population	Post Office; Distance
1	2	3	4
Chondroti; SPR. चोदरोटी	.. NW 4-0	1242; 426; 73; 113	Shahapur; 4-0
Dahagaon; SPR. दहागांव	.. SW 8-0	2085; 505; 99; 144	Vashind; 2-0
Dahigaon; SPR. दहीगांव	.. N 24-0	3517; 763; 136; 339	Khardi; 6-0
Dahivali Tarf Korkada ;SPR. दहीवली तर्फ कोरकाडा	.. SE 12-0	1784; 77; 13; 36	Shirgaon; 8-0
Dahivali Tarf Shere; SPR. दहीवली तर्फ शेरे	.. SE 12-0	592; 805; 130; 366	Shahapur; 12-0
Dalkhan; SPR. दळखण	.. NE 12-0	1733; 783; 142; 199	Khardi; 1½
Dand; SPR. दांड	.. NE 35-0	2470; 98; 22; 36	.. 8-0
Dapur; SPR. दापूर	.. NE 25-0	4700; 259; 58; 100	Shirol; 3-0
Dehene; SPR. डेहणे	.. E 32-0	8044; 1195; 241; 672	.. 2-0
Dhadhare; SPR. धाडरे	.. E ..	2907; 960; 67; 491	.. ..
Dhakane; SPR. धाकणे	.. NE 28-0	2776; 764; 150; 274	Vashale; 4-0
Dhamani; SPR. धामणी	.. NE 16-0	3467; 785; 150; 216	Khardi; 3-0
Dhasai; SPR. धसई	.. E 8-0	3141; 2377; 414; 968	Local; ..
Dimbhe; SPR. डिंबे	.. NW 22-0	552; 127; 19; 61	Aghai; 5-0
Dolkhamb; SPR. डोळखांब	.. E ..	898; 1153; 167; 313	Local; ..
Dughar; SPR. दुघर	.. N 12-0	114; 65; 17; 32	Khardi; 1-0
Fugale; SPR. फुगळे	.. NE 30-0	1920; 507; 95; 327	Vashale; 9-0
Gandulwad; SPR. गांडुलवाड	.. NE 24-0	1773; 363; 79; 204	Dolkhamb; 3-0
Gegaon; SPR. गेगांव	.. SE ..	2083; 1413; 236; 660	Kinhavali; 25-0
Ghanepada; SPR. घाणेपाडा	.. NE 12-0	519; 110; 20; 50	Khardi; 1-0
Goteghar; SPR. गोटेघर	.. NE 1-0	197; 894; 159; 238	Shahapur; ..
Golbhan; SPR. गोलभन	.. NE 12-0	605; 282; 62; 166	Khardi; 1-0
Gunde; SPR. गुंडे	.. E ..	4601; 1187; 227; 422	Local; ..
Hal; SPR. हाळ	.. SW 20-0	604; 163; 23; 69	Shahapur; 20-0
Hedvali; SPR. हेदवली	.. NE 36-0	1177; 240; 42; 77	.. ..
Hinglod; SPR. हिंगळोद	.. NE ..	3409; 278; 45; 108	Dolkhamb; 3-0
Hiv; SPR. हीव	.. S ..	1441; 789; 138; 258	Khutghar; 6-0
Jambhe; SPR. जांबे	.. SE 9-0	586; 455; 69; 181	.. ..
Jambhulwad; SPR. जांभुलवाड	.. NE 25-0	3189; 717; 144; 358	.. 4-0
Kajgaon; SPR. काजगांव	.. E 4-0	968; 499; 80; 264	Dhasai; 2-0
Kalamgaon; SPR. कळमगांव	.. N 12-0	2577; 691; 110; 225	Local; ..
Kalbhonde; SPR. कळभोंडे	.. NE 38-0	4332; 507; 124; 275	Vashale; 7-0
Kalambhe; SPR. कळंबे	.. S 1-0	592; 950; 197; 200	Asangaon; 1-0
Kalgaon; SPR. कळगांव	.. SE 12-0	1075; 526; 89; 163	Shahapur; 12-0
Kambare; SPR. कांबारे	.. NE 1-2	707; 751; 109; 167	Local; ..
Kambe; SPR. कांबे	.. E 38-0	626; 243; 44; 150	.. 2-0
Kanadi; SPR. कानडी	.. SE ..	1379; 450; 77; 257	Kinhavali; 1-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Asangaon; 5-0	Kinhavali; 23-0; Wed.	Asangaon; 5-0	W.	Sl (pr); Cs.
Vashind; 2-0	Vashind; 2-0; ..	Vashind; 2-0	W.	Sl (pr); Cs; tl.
Khaldi; 6-0	Khaldi; 6-0; Sun.	.. ..	..	Sl (pr); 3 tl.
Asangaon; 13-0	.. 7-0; ..	.. 7-0	W.	Sl (pr); Cs; tl.
Asangaon; 14-0	Shahapur; 12-0; Mon.	.. 8-0	W; t.	2 Sl (pr); Cs; tl; ch; lib.
Khaldi; 8-0	Khaldi; 8-0; Sun.	.. 1/2	W.	Sl (pr); 2 tl.
Kasara; 10-0	.. ..	.. 8-0	W.	....
Asangaon; 29-0	.. 31-0; Sun.	Khaldi; 10-0	W.	tl.
		Sakurli; 2-0	rv; w.	2 Sl (pr); Cs; 5 tl.
Kasara; 11-0	Ghoti; 20-0; Sat.	Vashale; 4-0	W.	Sl (pr); 2 tl; gym; ch.
Khaldi; 3-0	Khaldi; 3-0; Sun.	.. ..	..	Sl (pr); Cch.
Asangaon; 10-0	Shahapur; 8-0; Mon.	Local; ..	W.	3 Sl (pr); Cs; 2tl.
Atgaon; 17-0	Shahapur; 22-0; Mon.	.. 5-0	W; rv.	Cs; tl.
Asangaon; 35-0	Kinhavali; .. Wed.	Local; ..	Pl.	Sl (pr, m.); Cs; 3tl; 2mq; dg; gym; ch; lib; dp.
Khaldi; ..	.. ..	.. ..	..	....
Kasara; 15-0	Ghoti; 15-0; Sat.	Vashale; 9-0	W.	Sl (pr); 2 tl; gym.
Asangaon; 25-0	Dolkhamb; 3-0; ..	Dolkhamb; 4-0	W.	Sl (pr).
Kinhavali; 25-0	Kinhavali; 25-0; Wed.	.. 5-0	W; rv.	Sl (pr); Cs; 2 tl; mq.
Khaldi; 1-0	Khaldi; 1-0; Sun.	.. ..	..	Sl (pr).
Asangaon; 2-0	.. ..	.. ..	W.	Sl (pr); tl.
Khaldi; 1-0	Khaldi; 1-0; Sun.	Khaldi; 1-0	W.	Sl (pr); tl.
Asangaon; 30-0	Saralgaon; 30-0; ..	.. 6-0	W; rv.	Sl (pr); Cs; 3 tl.
Vashind; 7-0	Shahapur; 20-0; Mon.	Vashind; 7-0	W.	Sl (pr); tl.
.. ..	.. ..	.. ..	W.	Sl (pr); tl.
Asangaon; 25-0	Dolkhamb; 3-0; ..	.. 2-0	W.	Sl (pr); tl.
Shahapur; 6-0	.. ..	.. 6-0	W.	Sl (pr); tl.
.. ..	.. ..	.. ..	..	Sl (pr);
Asangaon; 26-0	.. .. 4-0; ..	Dolkhamb; 4-0	W.	Sl (pr); tl.
Asangaon; 6-0	.. ..	.. 0-6	W; rv.	Sl (pr); Cs; Hanuman Jayanti Fr. Ct. Sud. 15; 2tl.
Atgaon; 3-0	.. .. 12-0; ..	.. 1/2	W.	Cs; 2 tl, dg.
Kasara; 12-0	Dolkhamb; 9-0; ..	.. ..	W.	Sl (pr).
Asangaon; 1-0	Shahapur; .. Mon.	.. 0-5	W.	Sl (pr); tl; dp.
Asangaon; 14-0	Kinhavali; 14-0; Wed.	.. 8-0	W.	Sl (pr); Cs; 3 tl.
Asangaon; 1-1	Shahapur; 1-1; Daily.	Shahapur; 1-2	W.	Sl (pr); 2tl.
Asangaon; 28-0	.. 28-0; Sun.	Sakurli; 2-0	W; rv.	Sl (pr); Cs; 2 tl.
Asangaon; 24-0	Kinhavali; 4-0; Wed.	Kinhavali; 4-0	..	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kanawe; SPR. कानवे	SE 15-0	1054; 519; 96; 207	.. ..
Kanvinde; SPR. कानविंदे	N 12-0	813; 103; 579; 146	.. 1-0
Karade; SPR. कराडे	NW 4-0	199; 116; 23; 35	Shahapur; 4-0
Kasara Kh.; SPR. कसारा खुर्द	NE 32-0	6497; 1108; 320; 379	Vihigaon; 5-0
Kashti; SPR. काष्टी	NE 13-0	872; 119; 23; 38	Vashale 1-0 (bk);
Katbav; SPR. कातबाव	SW ..	1570; 17; 3; 5	Vashind; 4-0
Kawadas; SPR. कवडास	NE 2½	413; 282; 49; 99	1-0
Khaire; SPR. खैरे	NE 10-0	1327; 411; 69; 202	Shenave; 2-0
Kharade; SPR. खराडे	E ..	5783; 1602; 277; 774	.. ..
Khardi; SPR. खर्डी	NE ..	1875; 2879; 568; 402	Local; ..
Kharid; SPR. खरीद	SE ..	1025; 635; 108; 280	Local; ..
Kharivali Tarf Aghai; SPR. खरीवली तर्फ अघई	NE ..	1006; 667; 111; 313	Local; ..
Kharivali Tarf Korkada; SPR. खरीवली तर्फ कोरकाडा	SE ..	1003; 602; 97; 299	2-0
Khativali; SPR. खातीवली	SW 5-0	1972; 1089; 190; 321	Vashind; 0-7
Khor; SPR. खोर	NE 22-0	1984; 100; 18; 35	Aghai; 8-0
Khoste; SPR. खोस्ते	NW 16-0	1410; 137; 23; 42	Aghai; ..
Khutadi; SPR. खुताडी	NE 5-0	825; 84; 15; 23	Saralambe; 1-0
Khutaghar; SPR. खुटघर	SE 2-0	1216; 687; 130; 325	Local; 2-0
Kinhavali; SPR. किन्हवली	SE ..	1140; 2406; 440; 335	Local; ..
Koshimbade; SPR. कोशिंबडे	NE 20-0	1565; 384; 61; 185	Aghai; 6-0
Kothale; SPR. कोथाले	NE 35-0	4284; 632; 137; 349	Vashale; 4-0
Kothere; SPR. कोठेरे	NE 15-0	5550; 974; 171; 272	Soralambe 5-0
Kudshet; SPR. कुडशेत	SE 8-0	2045; 288; 43; 180	Shenawe; ..
Kulhe; SPR. कुल्हे	E 10-0	358; 285; 53; 115	.. 1-0
Lahe; SPR. लाहे	NW 8-0	1753; 827; 135; 333	Khardi; 4-0
Lawale; SPR. लवले	E 12-0	934; 459; 84; 228	Vehaloli; 1-0
Lenad Bk.; SPR. लेनाड बुद्रुक	SE ..	2125; 856; 152; 362	Shahapur; 8-0
Lenad Kh. SPR. लेनाड खुर्द	SE 1½	760; 392; 51; 158	Shahapur; 7-0
Madh; SPR. मड	SW 22-0	616; 439; 74; 178	Shahapur; 22-0
Mal; SPR. माळ	NE 40-0	3682; 798; 173; 438	Vihigaon; 4-0
Malad; SPR. माळद	.. 19-4	952; 244; 43; 127	Dolkhamb;
Malegaon; SPR. मळेगांव	E 10-0	2088; 1193; 205; 505	Local; ..
Mamanoli; SPR. मामनोली	NW 4-0	671; 176; 30; 41	Shahapur; 4-0
Manekhind; SPR. मानेखिंड	SE 17-0	998; 337; 60; 179	Khari; 4-0
Manjre; SPR. मांजरे	E 22-0	1456; 583; 109; 183	.. 1-5
Masavane; SPR. मासवणे	S 14-0	833; 535; 91; 232	Shahapur; 14-0
Mohili; SPR. मोहिली	NW 15-0	361; 305; 50; 106	Aghai; 10-0
Mokhavane; SPR. मोखावणी	NE ..	8118; 5055; 1172; 1008	Local; ..
Mugaon; SPR. मुगांव	SE ..	1846; 1228; 184; 537	Local; ..

Railway Station; Distance	Weekly Bazar ; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Asangaon; 15-0	Kinhavali; 1-0; Wed.	.. 0-5	W.	Sl (pr); Cs; tl.
Atgaon; 2-0	.. 12-0; ..	.. 1-0	W.	Sl (pr); tl.
Asangaon; 5-0	Kinhavali; 29-0; Wed.	Asangaon; 5-0	W.	Sl (pr); Cs.
.. 5-0	.. 5-0; ..	Local; ..	W.	2 Sl (pr); 2 tl; dh.
Kasara; 10-0	Ghoti; 16-0; Sat.	Stage; ..	W.	Sl (pr); tl.
Vashind; 4-0	Vashind; 4-0; ..	Vashind; 4-0	W.	....
Asangaon; 6-0	Shahapur; 2-5; Mon.	Local; ..	W.	Sl (pr); tl.
Asangaon; 12-0	Shahapur; 10-0; Mon.	Shenava; 2-0	W.	Sl (pr); 3 tl.
..
Khardi; ..	Local;	Local; ..	W.	Sl (pr); 3 tl; mq; dg; ch; lib; 4 dp; Cch.
Asangaon; 17-0	Kinhavali; .. Wed.	.. 4-0	W.	Sl (pr); Cs; 2 tl.
Asangaon; 25-0	.. .. Wed.	.. 3-0	W.	Sl (pr); Cs; tl.
Asangaon; 7-0	Shahapur; 6-0; Mon.	Local; ..	W.	tl.
Vashind; 0-7	Shahapur; 5-0; Mon.	.. ..	W.	Sl (pr); tl.
Atgaon; 16-0	Shahapur; 22-0; Mon.	.. ..	..	....
Atgaon; 11-0	Shahapur; 16-0; Mon.	.. 1-5	W.	....
Asangaon; 7-0	.. ..	.. ..	W; rv.	tl.
Asangaon; 2½	Shahapur; .. Mon.	Bhatsa; ..	W.	Sl (pr); 3 tl.
Asangaon; 17-0	.. .. Wed.	Local; ..	W; pl.	3 Sl (pr,m,n); 2 Cs; 4tl; mq, dg; ch; 2 dp.
Atgaon; 14-0	Shahapur; 20-0; Mon.	.. ..	W.	Sl (pr). tl.
Kasara; 9-0	Kasara; 9-0; ..	.. ..	W.	Sl (pr).
Asangaon; 17-0	Kinhavali; 15-0; Wed.	Shenava; 8-0	W.	3 Sl (pr); Cs; tl.
Asangaon; 10-0	Kinhavali; 8-0; Wed.	Malegaon; 4-0	W.	Sl (pr); tl; gym.
Asangaon; 12-0	Kinhavali; 7-0; Wed.	.. 1-0	Pl.	Sl (pr); Cs; tl.
Khardi; 4-0	Khardi; 4-0; Sun.	.. 1-0	W.	Sl (pr); 15 tl.
Asangaon; 12-0	Kinhavali; 5-0; Wed.	.. ..	W.	Sl (pr); Cs; tl.
Asangaon; 9-0	Shahapur; 8-0; Mon.	Shahapur; 7-0	W.	Sl (pr); Cs; 2 tl.
Asangaon; 8-0	Shahapur; 7-0; Mon.	Local; ..	W.	Sl (pr); Cs; tl; dp.
Vashind; 7-0	Shahapur; 22-0; Mon.	Washind; 7-0	W.	3 tl;
Kasara; 8-0	Kasara; 8-0; ..	Kasara; 8-0	W.	Sl (pr);
Asangaon; ..	Kinhavali; 20-0; Wed.	.. 1-0	W.	Sl (pr); Cs; tl.
Asangaon; 12-0	Kinhavali; 7-0; Wed.	.. ..	W; t.	Sl (pr); 3 tl.
Asangaon; 5-0	Kinhavali; 23-0; Wed.	Asangaon; 5-0	W.	....
Asangaon; 19-0	Kinhavali; 8-0; Wed.	.. 5-0	W.	5 Sl (pr); 3 tl.
.. 25-0	Kinhavali; 20-0; Wed.	.. ½	W.	Sl (pr); Cs; 2 tl;
Vashind; 7-0	Shahapur; 14-0; Mon.	.. 7-0	W.	Sl (pr); Cs; tl.
Atgaon; 10-0	Shahapur; 14-0; Mon.	.. 0-4	W.	Sl (pr); Cs; tl.
Kasara; ..	Ghoti; 20-0; Sat.	Stage; ..	W; t.	7 Sl (prh); 6 tl; mq; dg; dh; 5 dp; Cch.
Asangaon; ..	Kinhavali; 3-0; Wed.	.. 1-0	W; rv.	Sl (pr); Cs; dg; dp.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Musai; SPR. मुसई	.. E 9-0	1,352; 905; 148; 271	Shenave; 1-0
Nadgaon Traf Korkada; SPR. नडगांव तर्फ कोरकाडा	.. SE 5-0	781; 364; 59; 142	.. 2-0
Nandgaon; SPR. नांदगांव	.. SE 4-0	275; 282; 46; 124	Kinhavali; 4-0
Nandgaon Tarf Aghai; SPR. नांदगांव तर्फ अघई	.. N ..	1,958; 510; 116; 66	.. 4-0
Nandgaon Tarf Shere; SPR. नांदगांव तर्फ शेरे	.. SE ..	2,832; 1,610; 266; 807	.. ..
Nehroli; SPR. नेहरोली	.. SE 9-0	2,103; 400; 59; 201	.. ..
Nevare; SPR. नेवरे	.. NE 17-0	809; 289; 45; 150	Aghai; 1-0
Pachiware; SPR. पाचिवरे ओसाडगांव	.. NE ..	1,724; 16; 4; 8	.. ..
Palhari; SPR. पाल्हेरी	.. NE 20-0	2,657; 358; 98; 191	Bhat- sanagar; 5-0
Pali; SPR. पाली	.. SW 7	398; 305; 44; 116	Vashind; 2-0
Palshin; SPR. पळशीन	.. N ..	1,330; 334; 56; 189	Khardi; 5-0
Patole; SPR. पाटोळे	.. NE ..	3,660; 637; 125; 337	.. 3-0
Pendhari Tarf Aghai; SPR. पेंडरी तर्फ अघई	.. N 14-0	571; 195; 40; 73	.. ..
Partoli; SPR. परटोली	.. SE ..	373; 234; 42; 98	.. 0-4
Pashane; SPR. पाषाणे	.. S 4-0	1,505; 528; 73; 167	Vashind; 4-0
Pimpalpada; SPR. पिंपळपाडा	.. NE 12-0	321; 149; 25; 68	Khardi; 2-0
Pingalwadi; SPR. पिंगळवाडी	.. NE ..	2,984; 104; 15; 52	Vashale; 4-0
Pivali; SPR. पिक्ली	.. NW 20-0	1,491; 408; 72; 222	Aghai; 6-0
Pofodi; SPR. पोफोडी	.. SE 17-0	435; 232; 40; 121	.. 1-0
Punadhe; SPR. पुणधे	.. N ..	934; 380; 73; 135	.. ..
Ranvihir; SPR. रानविहीर	.. NE 32-0	2,738; 708; 123; 352	.. ..
Ras; SPR. रास	.. S ..	1,387; 165; 47; 70	Khutghar; ..
Ratandhale; SPR. रातांधळे	.. NE ..	648; 273; 57; 148	Khardi; 2½
Rodwahal; SPR. रोडवहाळ	.. NE 25-0	2,820; 212; 50; 108	Dolkhamb; 4-0
Sajivali; SPR. साजिवली	.. NE 9-0	2,263; 1,043; 288; 409	Saralambe; 4-0
Sakadbav; SPR. साकडबाव	.. NE ..	5,016; 1,612; 307; 926	Vehaloi; 6-0
Sakharoli Tarf Aghai; SPR. साखरोली तर्फ अघई	.. N ..	1,013; 570; 107; 139	Atgaon; 4-0
Sakurli; SPR. साकुर्ली	.. NE 25-0	4,448; 1,241; 231; 307	.. 2-0
Sane; SPR. साने	.. SW 8-0	487; 427; 68; 150	Vashind; 2½
Sapgaon; SPR. सापगांव	.. E 2-0	876; 1,061; 197; 441	Asangaon; 5-0
Saralambe; SPR. सरलांबे	.. NE 5-0	1,175; 1,084; 212; 417	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Asangaon; 11-0	Kinhavali; 7-4; Wed.	.. 1-0	W.	Sl (pr); Cs; 2 tl.
Asangaon; 10-0	Saralgaon; 30-0; ..	Local; ..	W.	Sl (pr); Ct. Sud. 15; 2 tl.
Asangaon; 20-0	Kinhavali; 4-0; ..	.. 0-1	W.	Sl (pr); tl.
.. 4-0	.. 10-0; ..	.. 12-0	W.	Sl (pr); tl.
..
.. ..	.. ..	.. ..	..	Sl (pr).
Atgaon; 13-0	Shahapur; 17-0; Mon.	Aghai; 1-0	W;pl;rv;n.	Cs; 2 tl.
..
Kasara; 15-0	Kasara; 15-0; ..	Bhat-sanagar; 5-0	W.	2 Sl (pr).
Vashind; 2-0	Vashind; 2-0; ..	.. 0-3	W.	Sl (pr); tl.
Khardi; 5-0	Khardi; 5-0; Sun.	Stage; ..	..	Sl (pr); tl.
Kasara; 12-0	Kasara; 12-0; ..	.. ..	W.	Sl (pr).
Atgaon; 5-0	.. 14-0; ..	.. ..	W.	Sl (pr); tl.
.. ..	Kinhavali; 1-0; ..	Stage; ..	W; rv.	Sl (pr); tl; m.
Shahapur; 7-0	.. ..	.. 4-0	W.	tl.
Khardi; 3-0	Khardi; 1-5 Sun.	Khardi; 1-5	W.	Sl (pr); tl.
Kasara; 10-0	.. ..	Vashale; ..	W.	....
Atgaon; 14-0	Shahapur; 20; Daily	.. ..	W.	2 Sl (pr); tl.
Asangaon; 17-0	.. 4-0; ..	.. 2-0	W.	Sl (pr); Cs; tl.
Shahapur; 4-0	Atgaon; 3-0; Daily	Shahapur; 0-2	W.	Sl (pr); tl.
.. ..	.. ..	.. ..	..	Sl (pr); tl; m.
.. 9-0	Shahapur; .. ..	.. 9-0	W; rv.	tl.
Khardi; 2½	Kahardi; 2½; ..	Stage; ..	W.	Sl (pr); Cs; tl.
Asangaon; 26-0	Dolkhamb; 4-0; ..	Dolkhamb; 4-0	W.	Sl (pr).
Asangaon; 10-0	Bhatsa; 2-0; ..	.. ..	W; rv.	Sl (pr); Fr.Ct.Pournima; 2 tl.
Asangaon; 20-0	.. 17-0; Wed.	.. ..	W.	4 Sl (pr); Cs; tl.
Atgaon; 4-0	.. ..	.. 1-0	W.	Sl (pr); tl.
Asangaon; 25-0	Kinhavali; 19-0; ..	Local; ..	rv.	Sl (pr); Cs; 6 tl; 2 mq.
Vashind; 2½	Vashind; 2½; ..	.. 2-0	W.	Sl (pr); tl.
.. ..	.. 2-0; Mon.	.. ..	rv.	Sl (pr); Cs; tl.
Asangaon; 7-0	.. ..	Local; ..	W; rv.	Sl (pr); Cs; Fr. Rang Panchami, Phg. 5; Ram Navmi, Gokul Ashtami; 4 tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Sarangpur; SPR. सारंगपुर	NE 8-0	3101; 870; 132; 362	Sarlambe; 3-4
Sarmal; SPR. सारमाळ	SW ..	841; 549; 112; 124	Vashind; 2-0
Sathagaon; SPR. साठगांव	E 10-0	1726; 766; 120; 330	Shenawe; 1-0
Savroli; SPR. सावरोली	W 5-0	750; 259; 42; 139	Kinhavali; 5-0
Savroli Bk.; SPR. सावरोली बु.	NW 1-2	1476; 876; 148; 202	Asangaon; 1-0
Savroli Kh.; SPR. सावरोली खु.	SE 20-0	2681; 1102; 212; 564	Aghai; 6-0
Shahapur-Urban area XVI; शहापूर नागरी विभाग १६	HQ ..	6.79; 7,887; 1,473; 352	Local; ..
Shei; SPR. शेई	S 12	1081; 573; 92; 211	Vashind; 7-0
Sheel; SPR. शेळ	SE 15-0	1272; 930; 169; 449	Kinhavali; 1-0
Shelavali Tarf Korkada; SPR. शेलवली तर्फ कोरकाडा	SE 25-0	789; 724; 126; 334	Kinha- 1-0 vali;
Shelavali Tarf Shere; SPR. शेलवली तर्फ शेरे	E 4-0	1237; 688; 115; 347	Dhasai; 1-0
Shenave; SPR. शेणवे	E 8-4	641; 1073; 198; 354	.. ..
Shendrun; SPR. शेंद्रुण	SE 8-0	1288; 709; 122; 163	Shahapur; 8-0
Shere; SPR. शेरे	S ..	2354; 1129; 179; 416	Vashind; 5-0
Shilottar; SPR. शिलोतर	E 10-0	1441; 436; 93; 176	Dhasai; 1-0
Shirgaon; SPR. शिरगांव	SE 8-0	1367; 766; 111; 297	Local; ..
Shirol; SPR. शिरोळ	NE 28-0	9422; 2455; 589; 1300	Local; ..
Shirvanje; SPR. शिरवंजे	SE 14-0	946; 238; 40; 99	Kinhavali; 2-0
So; SPR. सो	SE 28	1906; 1406; 233; 554	Local; ..
Susurwadi; SPR. सुसुरवाडी	NE ..	1387; 360; 70; 216	Wakhale; 3-0
Taharpur; SPR. टहार्पुर	NW 19-0	1398; 441; 73; 162	Aghai; 2-0
Talvade Tarf Sakurli; SPR. तलवाडे तर्फ साकुरली	NE ..	1554; 534; 108; 312	Dolkhamb; 3-0
Tansa; SPR. तानसा	NW 14-0	23693; 494; 104; 21	Aghai; ..
Tembhare; SPR. टेम्हरे	SE 13-0	1394; 885; 236; 414	Shaha- 13-0 pur;
Tembhe; SPR. टेम्हे	N ..	1504; 981; 56; 428	Vaitarna; 2-0 camp;
Tembhurli; SPR. टेम्हुर्ली	E ..	2562; 1105; 210; 563	Local; ..
Thile; SPR. ठीले	SE 8-0	269; 413; 59; 148	.. ..
Thune; SPR. ठुणे	E ..	1603; 1229; 230; 466	.. ..
Tute; SPR. तुते	NE ..	207; 176; 24; 90	Bhum- 2-0 bare;
Umbaravane; SPR. उंबरवाणे	NE ..	3125; 163; 48; 98	.. ..

Railway Station; Distance 5	Weekly Bazar Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Asangaon; 10-2	Shahapur; 8-0; Mon.	Dhasai; 3-0	W.	2 Sl (pr); Hanuman, Jayanti Ct. sud. 15; 2 tl.
Vashind; 2-0	Vashind; 2-0; ..	Vashind; 2-0	W.	Sl (pr); tl.
Asangaon; 12-0	Kinhavali; 7-0; Wed.	.. ..	W.	Sl (pr); m; Cs; 2 tl.
Asangaon; 20-0	.. ..	.. 2-0	W; t.	Sl (pr); Cs.
Asangaon; 1-0	Kinhavali; 20-0; ..	Asangaon; 1-0	W.	Sl (pr); Cs; tl.
Atgaon; 14-0	Shahapur; 20-0; ..	.. ..	W.	Sl (pr); tl.
Asangaon; 1½	Local;	Local; ..	W.	5 Sl (pr, m, h); 2 Cs. Mahashivaratra Fr. Magh. 14; mq; dh; dg; ch; lib; 9 dp; 12 tl.
.... 3-0	Shahapur; .. Mon.	Vashind; 7-0	W.	Sl (pr); m; tl.
Asangaon; 18-0	Kinhavali; 1-0; Wed.	.. ..	..	2 Sl (pr); 2 tl.
Asangaon; 27-0	Kinhavali; 1-0 ..	Kinhavali; ..	W; rv.	Sl (pr); 2 cs; tl.
Asangaon; 6-0	Shahapur; 4-0; Mon.	.. 0-4	W.	Sl (pr); Khandoba Fr. Magh. Sud. 15; Hanuman Jayanti Ct. Sud. 15; 4 tl.
Asangaon; 10-0	Kinhavali; 6-4; Wed.	Local; ..	W.	Sl (pr, m); Cs; 3 tl; ch; dp.
Asangaon; 9-0	Shahapur; 8-0; Mon.	Lenad; 1-0	W.	Sl (pr); Cs; tl; dp.
Vashind; 6-0	Shahapur; 11-0; Mon.	Vashind; 6-0	W; t.	2 Sl (pr); tl.
Asangaon; 11-0	Kinhavali; 7-0; Wed.	.. ..	W; rv.	Sl (pr); Cs; 2 tl.
Asangaon; 8-0	.. ..	Local; ..	W.	Sl (pr); tl; ch; lib; Cch.
Khardi; 7-0	Kasara; 7-0; ..	Khardi; 7-0	W.	2 Sl (pr); Cs; tl.
Asangaon; 20-0	.. ..	Barde- 1-0	W.	Sl (pr).
Asangaon; 30-0	Kinhavali; 4-0; ..	pada; Local; 4	W.	Sl (pr); 2 Cs; tl.
Kasara; 10-0	.. ..	.. ..	..	....
Atgaon; 14-0	Shahapur; 19-0; Mon.	.. 3-0	W.	Sl (pr); Cs; 2 tl.
Asangaon; 25-0	Dolkhamb; 3-0; ..	.. 3-0	W.	Sl (pr).
Atgaon; 9-0	Shahapur; 14-0; ..	Local; ..	Pl.	....
Vashind; 10-0	Shahapur; 13-0; Mon.	Shahapur; 8-0;	W.	Sl (pr); Cs; 2 tl.
Khardi; 16-0	Khardi; 16-0; Sun.	Stage; ..	W.	Sl (pr); 3 tl.
Asangaon; 25-0	Kinhavali; .. Wed.	Local; ..	W.	2 Sl (pr); Cs; tl.
Asangaon; 10-0	Shahapur; 8-0; Mon.	.. 0-1	W.	Sl (pr); Cs; tl.
Asangaon; 14-0	Kinhavali; 5-0; ..	.. ..	W.	2 Sl (pr); Cs; Paush 15; tl; Cch.
Asangaon; 7-0	Shahapur; 6-0; ..	Kawadase; 1-0	W.	Sl (pr).
.. 10	.. 10-0; ..	.. 10	..	....

Village name in English; Taluka abbreviation; Village name in Marathi	Direction; Travelling distance	Area (acres); Population; Households; Agricultural Population	Post Office; Distance
1	2	3	4
Umbarkhand; SPR. उंबरखंड	NE ..	3125; 163; 48; 98	Khardi; 2½
Umbhrai; SPR. उंभई	SE ..	992; 875; 128; 263	Mugaon; 2-0
Varaskol; SPR. वरसकोळ	NE 13-0	1132; 63; 68; 26	Khardi; 3-0
Vashale Bk.; SPR. वाशाले बु.	NE ..	4644; 859; 166; 386	Local; ..
Vashale Khurd; SPR. वाशाले खु.	NE 1-0	999; 189; 41; 116	Vashala; 1-0
Veheloli Khurd; SPR. बेहळोली खुद	SW ..	1393; 887; 158; 291	Asan- 24-0 gaon;
Veheloli Bk.; SPR. बेहळोली बु.	E 11-0	5059; 1996; 359; 686	Asan- 12½ gaon;
Veheloli Khurd; SPR. बेहळोली खु.	SE 6-0	773; 469; 76; 174	Vashind; 3-0
Veluk; SPR. वेळुक	NE ..	4547; 748; 146; 312	Vatole; 4-0
Vhigaon; SPR. व्हीगांव	NE ..	4125; 1113; 288; 509	Local; ..
Wachkol; SPR. वाचकोळे	SE ..	441; 288; 48; 121	Kinha- 2-0 vali;
Wafe; SPR. वाफे	E 1-0	520; 523; 71; 134	Shahapur; 1-0
Waghivali; SPR. वाघीवली	NW 19-0	1195; 2219; 42; 52	Aghai; 3-0
Welhonde Tarf Aghai; SPR. बेलहोडे तर्फ अघई	NW ..	1046; 445; 74; 310	.. ..
Walshet; SPR. वालशेत	N ..	837; 570; 67; 255	.. ..
Wandre; SPR. वांद्रे	NW ..	2256; 330; 68; 171	Aghai; 7-0
Vashind; SPR. वाशिंद	SW 5-0	981; 4177; 816; 537	Local; ..
Waveghar; SPR. वावेघर	NW ..	55; 63; 10; 31	.. ..
Wedvahal; SPR. वेडवहाळ	NW ..	670; 531; 54; 181	.. ..
TALASARI TALUKA			
Achhad; TLR. अच्छाड	N 9-0	1466; 846; 138; 310	Talasari; 9-0
Amagaon; TLR. आमगाव	NW 7-4	1401; 1092; 299; 567	Dongari; 1-4
Anwir; TLR. अणवीर	NE 7-4	1709; 1270; 240; 521	Talasari; 7-4
Borigaon Tarf Deheri; TLR. बोरीगाव तर्फ देहेरी	W ..	691; 479; 77; 243	Zai; 1-4
Bormol; TLR. बोरमोळ	N 8-4	928; 660; 105; 233	Talasari; 8-4
Dongari; TLR. डोंगरी	NW 8-0	2961; 2377; 418; 1175	Local; ..
Ghimniye; TLR. घिमनिये	NW 9-0	1178; 1226; 224; 521	Girgaon; 1-0
Girgaon; TLR. गिरगाव	NW 6-0	3562; 2568; 430; 949	Local; ..
Kajali; TLR. काजळी	N 8-4	568; 441; 95; 244	Talasari; 8-4
Karajgaon; TLR. करजगाव	SW 8-0	3099; 1320; 199; 470	Talasari; 8-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Khardi; 2½	.. ..	.. ..	W.	Sl (pr); tl.
Asangaon; 23-0	Kinhavali; 5-0; ..	.. ..	W.	Sl (pr); m; Cs; tl.
Khardi; 2-0	Khardi; 2-0; Sun.	Khardi; 2-0	W.	Sl (pr); tl.
Kasara; 9-0	Ghoti; 15-0; Sat.	Local; ..	W.	Sl (pr); Cs; gym; ch; lib.
Kasara; 10-0	Ghoti; 16-0; Sat.	Vashala; 1-0	W.	Sl (pr); tl.
Kinhavali; 4-0	.. ..	Kinhavali; 4-0	W.	Sl (pr).
.. ..	.. ..	.. 0-1	W.	Sl (pr); m; tl.
Vashind; 3-0	Shahapur; 6-0; ..	.. 3-0	W.	3Sl (pr); tl.
Kasara; 10-0	Kasara; 10-0; ..	.. ..	W.	Sl (pr).
Kasara; 10-0	Kasara; 10-0; ..	Stage; ..	W.	Sl (pr); Cs.
Asangaon; 20-0	Kinhavali; 2-0; ..	Bardepada; 1-0	..	Sl (pr).
Asangaon; 2-0	Shahapur; 1-0; ..	Shahapur; 1-0	W.	Sl (pr); tl.
Atgaon; 14-0	Shahapur; 15-0; Mon.	.. 3-0	W.	Sl (pr); Cs; tl.
..
Asangaon; 3-0	Shahapur; 5-0; ..	.. 3-0	W.	Sl (pr); Cch; tl.
Atgaon; 15-0	Shahapur; 21-0; ..	.. ..	..	....
Local; ..	Local; ..	Stage; ..	rv; pl.	Sl (pr); m; Cs; 7tl; mg; gym; ch; 6 dp.
..
..
Sanjan; 6-0	Talasari; 6-0; Mon.	Local; ..	W.	Sl (pr); Cs; tl.
Sanjan; 4-0	Sanjan; 4-0; Sun.	Local; ..	W.	Sl (pr); Cs.
Sanjan; 8-4	Talasari; 7-4; Mon.	.. 4-0	W.	Sl (pr).
Umbergaon Road; 5-0	Bordi; .. Thu.	.. ..	W.	Sl (pr).
Sanjan; 8-0	Talasari; 8-4; Mon.	.. 4-4	W.	Sl (pr).
Sanjan; 2-4	Sanjan; 2-4; Sun.	Local; ..	W.	Sl (pr).
Sanjan; 1-0	Sanjan; 1-0; Sun.	Local; ..	W.	Sl (pr).
Umbergaon Road; 3-0	.. ..	Local; ..	W.	2 Sl (2 pr); Cs.
Sanjan; 6-0	Talasari; 8-4; Mon.	Local; ..	W.	....
Umbergaon Road; ..	Talasari; 8-0; Mon.	.. 6-0	rv.	2 Sl (2 pr); Cs.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kawade; TLR. कवाडे	.. W 2-0	1732; 1682; 276; 489	Talasari; 2-0
Kochai; TLR. कोचाई	.. N 7-0	2324; 1977; 339; 579	Talasari; 7-0
Kodad; TLR. कोदाड	.. E ..	758; 815; 141; 214	Udhawa; 3-0
Kunzre; TLR. कुंझरे	.. SE 2-4	3351; 2660; 451; 642	Sutrakar; 2-0
Sambha; TLR. संभा	.. NW 9-0	1486; 1877; 374; 1050	Dongari; 1-0
Sawane; TLR. सवणे	.. SW 4-0	1268; 734; 141; 293	Talasari; 4-0
Sawroli; TLR. सावरोली	.. N 5-4	1676; 1117; 223; 337	Talasari; 5-4
Sutrakar; TLR. सुत्रकार	.. N 1-4	4697; 2983; 535; 914	Talasari; 1-0
Talasari; तलासरी	.. HQ ..	5113; 5468; 182; 1300	Local; ..
Udhawa; TLR. उधवा	.. E ..	4300; 3204; 583; 873	Local; ..
Upalat; TLR. उपलत	.. N 8-4	4395; 3564; 595; 1410	Dongari; 3-0
Vadavali; TLR. वडवली	.. S 2-0	1894; 1685; 320; 890	Talasari; 2-0
Varwade; TLR. वरवाडे	.. N 4-0	2529; 1749; 360; 698	Dongari; 4-0
Vasa; TLR. वसा	.. W ..	2821; 1635; 271; 689	Zari; 1-4
Vevaji; TLR. वेवजी	.. W 10-0	4475; 3922; 725; 1721	Local; ..
Zai; TLR. झाई	.. W ..	2608; 3300; 571; 1229	Local; ..
Zari; TLR. झरी	.. W 4-0	3662; 2734; 598; 1017	Local; ..
ULHASNAGAR TALUKA			
Adivali Dhokli; UNR. अदीवली धोकळी	.. SW ..	443; 571; 98; ..	.. ..
Ambernath, Urban Area XXII; UNR.	.. HQ ..	18.13; 56,276; 13,326; 803	.. ..
अंबरनाथ नागरी विभाग २२. Ambeshiv Kh.; UNR.	.. E ..	342; 229; 36; 67	.. ..
अंबेशिव खुर्द Ambeshiv Bk.; UNR.	.. E ..	1554; 1062; 236; 266	.. ..
अंबेशिव बुद्रुक Ambhe; UNR. आंभे	.. S ..	522; 467; 278; 228	.. ..
Ashele; UNR. आशेळे	.. W 5-0	438; 686; 79; 146	Ulhas-nagar; 1-0

Railway Station; Distance		Weekly Bazar; Distance; Bazar Day		Motor Stand; Distance		Drinking Water facilities	Institutions and other information
5		6		7		8	9
Umber- gaon Road;	8-0	Talasari;	2-0; Mon.	Local;	..	W.	Sl (pr); Cs.
Sanjan;	6-4	Sanjan;	6-4; Sun.	..	2-4	W.	2 Sl (2 pr).
..	20-0	Udhawa;	3-0; Sun.	Udhawa;	3-0	W; rv.	Sl (pr).
Umber- gaon Road;	12-0	Talasari;	2-4; Mon.	Local;	..	W; rv.	3 Sl (3 pr); Cs.
Sanjan;	2-0	Sanjan;	2-0; Sun.	Sanjan;	2-0	W.	Sl (pr).
Umber- gaon Road;	7-0	Talasari;	4-0; Mon.	Kawade;	2-0	W.	Sl (pr).
Sanjan;	6-4	Talasari;	6-4; Mon.	..	2-0	W.	2 Sl (2 pr); Cch.
Umber gaon Road;	11-4	Talasari;	1-0; Mon.	Talasari;	1-0	W.	4 Sl (4 pr); Cs; (mp); tl; Cch.
..	..	Local;	.. Mon.	Local;	..	W.	4 Sl (3 pr, h); 2 Cs; 3 tl; dp; Cch.
Umber- gaon Road;	18-0	Udhawa;	.. Sun.	Local;	..	W.	5 Sl (5 pr); 2 Cs; tl; dp; Cch.
Sanjan;	5-0	Talasari;	5-0; Mon.	Stage;	0-1	W.	Sl (pr); Cs; (gr); Cch.
Umber- gaon Road;	9-0	Talasari;	2-0; Mon.	Dapchari;	1-0	W; rv.	Sl (pr); dp.
Sanjan;	6-0	Talasari;	4-4; Mon.	Local;	..	W.	Sl (pr); Cs.
..	..	..	..	Zari;	1-0	W.	Sl (pr); Cs.
Umber- gaon Road;	0-3	Umbergaon;	0-3; ..	Local;	..	W.	3 Sl (3 pr); Cs; tl.
Umber- gaon Road;	5-0	Bordi;	1-0; Thu.	Local;	..	W; t; rv.	4 Sl (4 pr); 2 Cs; (mp); tl; dp.
Umber- gaon Road;	4-4	Talasari;	4-0; Mon.	Local;	..	W.	Sl (pr); Cs.
..
..
..
..
Ulhas- nagar;	2-0	..	..	Ulhas- nagar Camp;	1-0	W.	Sl (pr); Cs. tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Asnol; UNR. असनोली	SE 16-0	588; 146; 30; 41	Badlapur; 8-0
Badlapur Urban Area; XXIII UNR. बदलापूर नागरी विभाग २३	S ..	7-25; 4703; 841; 549	Local; ..
Bandhanwadi; UNR. बांधणवाडी	SW 16-0	24; 226; 46; 84	Utadi; 0-2
Belvali; UNR. बेलवली	SE 7-0	410; 648; 87; 108	Kulgaon; 8-0
Bendshil; UNR. बेंडशील	SE ..	1961; 293; 55; 157	.. ..
Bhal; UNR. भाल	SW ..	516; 1091; 191; 423	.. ..
Bhoj; UNR. भोज	SE ..	2191; 473; 93; 127	Kulgaon; 5-0
Bohonoli; UNR. बोहोणोली	S ..	1197; 344; 66; 99	.. ..
Burdul; UNR. बुर्दुल	SW 7-0	260; 530; 89; 200	Wadi; 3-0
Chamtoli; UNR. चामटोली	SE ..	494; 505; 75; 121	.. ..
Chandap; UNR. चांदप	SE 16-0	594; 195; 36; 51	Badlapur; 8-0
Chargaon; UNR. चरगाव	SE ..	4817; 1251; 147; 571	.. ..
Chikhali; UNR. चिखली	SE 4-0	1019; 806; 110; 166	Ambarnath; 3-0
Chinchavali; UNR. चिंचवली	SE ..	2110; 363; 91; 206	Mangrul; 1-0
Chinchavali Bk.; UNR. चिंचवली बुद्रुक	SW ..	486; 473; 106; 170	.. ..
Chinchpada; UNR. चिंचपाडा	NW 4-0	251; 561; 201; 100	.. ..
Chirad; UNR. चिरड	SW ..	376; 255; 29; 58	.. ..
Chon; UNR. चोण	E 18-0	1792; 592; 95; 261	.. 4-0
Dahivali Tarf Chon; UNR. दाहिवली तर्फ चोण	SE ..	191; 372; 63; 111	Kulgaon; 4-5
Dapivali; UNR. दापिवली	E ..	313; 274; 40; 73	.. ..
Devalcli; UNR. देवली	SE 13-0	290; 281; 49; 82	Badlapur; 2-0
Dhawale; UNR. धवळे	SE 31-0	1097; 128; 599; 218	Vangani; 2-0
Dhoke; UNR. धोके	SW ..	2071; 417; 58; 158	.. ..
Dhoke; UNR. धोके	E ..	212; 173; 29; 45	.. ..
Done; UNR. डोणे	SW 32-0	766; 691; 126; 259	Vangani; 2-0
Dwarli; UNR. द्वारली	SW 12-0	250; 687; 95; 72	.. ..
Goragaon; UNR. गोरगाव	SE ..	945; 639; 111; 180	Badlapur; 5-0
Gorpe; UNR. गोरपे	SW ..	280; 446; 67; 95	.. ..
Indgaon; UNR. इंदगाव	SE ..	939; 275; 39; 85	Badlapur; 3-0
Jambhale; UNR. जामळे	SE 12-0	201; 302; 40; 70	Badlapur; 1-0
Jambilghar; UNR. जाम्बिलघर	SE 16-0	378; 185; 35; 43	.. 8-0
Jambhivali; UNR. जाम्बिवली	S ..	1996; 511; 122; 199	Badlapur; 6-0
Javaai (1); UNR. जावसई	NE ..	758; 489; 93; 75	.. ..
Javaai (2); Included in Urban Area XXII; UNR. जावसई (२) नागरी विभाग XXII मध्ये समाविष्ट	NE ..	.. ..	.. ..
Joveli; UNR. जोवेली	SE 22-0	487; 459; 78; 146	Kulgaon; 2-0
Kakole; UNR.; काकोळे	S 4-0	478; 294; 48; 73	Badlapur; 7-0
Kanhor; UNR. कान्होर	SE 22-0	2084; 1071; 186; 249	Badlapur; 1-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6			Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Badlapur; 10-0 Local; ..	..	..	..	1-0 ..	W; rv. Pl.	Sl (pr); tl. Sl (pr, h); Cs; Devi Fr. Ct. 15; Vsk. 2; 8 tl; 4 dg; 2 gym; ch; 4dp.
Kalyan; 10-0	Kalyan;	10-0; .. .. ..	.. Local; .. ..	.. .. .. ..	W. Pl. .. ..	.... Sl (pr); 2 tl; m; dp.
Badlapur; 5-0 ..	Kalyan; ..	23-0; Thu. ..	.. ..	5-0 ..	W. ..	2 tl.
Taloja; 4-0 Panchanand	Taloja; ..	4-0; Wed. ..	Usatane; 0-2 ..	W. ..	W. ..	Sl (pr); 2 tl.
Badlapur; 8-0 ..	.. ..	.. ..	.. ..	0-4 ..	W; rv. W.	Sl (pr); Cs; tl.
Ambar-nath; Kalyan; 5-0	.. Kalyan;	.. 5-0;	.. ..	0-6 1-0	W. ..	Sl (pr); 2 tl; lib; dp. Sl (pr); tl.
..
Badlapur; 6-0 Badlapur; 4-5	.. Kalyan;	.. 22-0; Thu.	.. ..	1-0 ..	W; p. W.	2 tl. Sl (pr); tl.
.. Badlapur; 5-0 Vangani; 2-0	.. Kalyan; Vangani;	.. 21-0; Thu. 2-0;	.. .. Goregaon; 2-0	.. .. ..	W. W; rv. ..	.... Sl (pr); tl. Sl (pr); Cs; tl.
.. Vangani; 2-0 Kalyan; .. Vangani; 2-0	.. Vangani; Kalyan; Vangani;	.. 2-0; .. 2-0;	.. .. .. Kulgaon; 7-0	.. 4-;	W; rv. W. W; rv. ..	.... Sl (pr); Cs; 4 tl. Sl (pr); tl. 2Sl (pr); Cs; tl; mq; dg.
.. Vangani; 2-0 Badlapur; 4-0 Badlapur; 7-0 Ambarnath; 3-0	.. Vangani; Kalyan; .. ..	.. 2-0; 21-0; Thu. .. ..	.. Vangani; 2-0 Badlapur; 1-0 Stage; ..	.. W. W. W. ..	W. W. W. ..	.... Sl (pr); 2 Cs; tl. Sl (pr); gym. Sl (pr); tl. Sl (pr); tl.
..
Badlapur; 2-0 Ambarnath; 5-0 Badlapur; 5	Kulgaon; .. Kalyan;	2-0; .. 22-0; Thu.	Stage; .. ..	.. 4-0 ..	Pl. W, t. W.	tl. tl. Sl (pr); Cs; tl.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kansai; Included in Urban Area XXII; UNR. कानसई नागरी विभाग XXII मध्ये समाविष्ट	N ..	.. .. .	.. ..
Karand; UNR. कारंद	.. E 20-0	1639; 360; 82; 150	Kulgaon; 8-0
Karavale Kh; UNR.; करावले खर्द	.. SW 16-0	513; 652; 111; 179	Hajimalang-wadi; 2-1/2
Kasgaon; UNR. कासगाव	.. SE 11-0	1113; 729; 124; 265	Badlapur; 5-0
Karav; UNR. काराव	.. SE 14-0	1300; 562; 100; 163	Badlapur; 6-0
Katrap; UNR. कात्रप	.. SE ..	765; 509; 72; 201	.. ..
Kharad; UNR. खरड	.. SW ..	562; 397; 70; 120	.. ..
Kharvai; UNR. खरवाई	.. SE 12-0	467; 805; 116; 51	Badlapur; 2-0
Kohojkhuntivali; Included in Urban Area XXII; UNR. कोहोज खुंटीवली नागरी विभाग XXII मध्ये समाविष्ट	NE ..	.. .. .	.. ..
Kudsaware; UNR. कुडसावरे	.. SE 31-0	842; 399; 78; 146	Vangani; 1-0
Kulgaon Urban Area; XXIV. UNR. कुळगाव नागरी विभाग २३	.. E ..	3,63; 6758; 1378; 295	Local; ..
Kumbharli; UNR. कुंभारली	.. SW 16-0	313; 229; 39; 60	Hajimalang-wadi; 3-0
Kushivali; UNR. कुशिवली	.. S ..	2007; 440; 74; 118	.. ..
Manerc (1); UNR. माणरे (१)	.. W 6-0	587; 1147; 186; 281	Dwarli; 1-1/2
Mancre (2) Included in Urban Area XXI; UNR. माणरे (२) नागरी विभाग XXI मध्ये समाविष्ट	W ..	.. .. .	.. ..
Mangrul; UNR. मांगरुळ	.. SW ..	587; 1124; 178; 234	.. ..
Manjarli; UNR. मांजली	.. SE 12-0	140; 442; 101; 41	Kulgaon; 0-3
Mankivali; UNR. माणकिवळी	.. SE ..	227; 460; 94; 114	Kulgaon; 2-0
Morivali; Included in Urban Area XXII; UNR. मोरीवली नागरी विभाग XXII मध्ये समाविष्ट	.. E ..	.. .. .	.. ..
Mulgaon; UNR. मुळगाव	.. SE 25-0	1372; 876; 148; 192	.. 3-0
Narhan; UNR. नान्हण	.. SW 16-0	855; 699; 127; 207	Hajimalang-wadi; 3-0
Nevali; UNR. नेवाळी	.. SW 6-0	789; 1491; 229; 380	Mangrul; 1-0
Pachon; UNR. पाचोण	.. E ..	317; 56; 8; 19	.. ..
Padirpada; UNR. पादीरपाडा	.. E ..	162; 105; 19; 29	Badlapur; 10-0
Pale; UNR. पाले	.. SW 4-0	370; 710; 114; 141	Badlapur; 6-0
Pali; UNR. पाली	.. SW ..	944; 328; 50; 84	.. ..
Pimpaloli Tarf Chon; UNR. पिंपलोली तर्फे चोण	.. SE 16-0	865; 298; 51; 147	Badlapur; 8-0
Posari; UNR. पोसरी	.. SW ..	876; 669; 87; 165	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6		Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and Other information 9
..
Badlapur; 8-0 Kalyan; 9-0	.. .. Kalyan; 9-0; Thu.	.. ..	.. 3-0 Local; ..	W; rv. W.	Sl (pr); 2 tl. Sl (pr); Cs; Hanuman Jayanti Ct. Sud. 5; 2 tl.
Vangani; 3-0 Vangani; 2-0	Vangani; 3-0; .. .. ..	.. ..	Kulgaon; 5-0 .. 6-0	W; rv. W.	Sl (pr); Cs; tl. 2 Sl (pr); 2 cs; 2 tl.
.. .. .. ..	.. .. .. ..	.. ..	.. .. .. ..	.. .. .. ..	.... dp.
Badlapur; 2-0	Kulgaon; 2-0; ..	.. ..	Stage; ..	..	Sl (pr); Mahashivratri Fr. Mg. Vad. 14; 3 tl.
..
Vangani; 1-0 Local; ..	Wangani; 1-0; .. .. ..	.. ..	Goregaon; 1-0 Local; ..	rv. Pl.	Cs; tl. 4sl (pr, h); Cs; Devi Fr. Ct. sud 9; Srn Sud. 8; 6tl; m; dg; lib; 14dp.
Kalyan; 9-0	Kalyan; 9-0; Thu.	.. ..	.. 1-0	W.	Sl (pr); Fr. Ct. 3 Krishna Paksha; tl; m.
.. .. Ulhas-nagar; 2-½ .. ..	.. .. .. ..	.. ..	.. .. Ulhas-nagar; 2-½	W.	Sl (pr); m.
.. .. Badlapur; 0-2 Badlapur; 2-0 .. ..	.. .. Kulgaon; 2-0; ..	.. ..	Kulgaon; 0-2 .. 0-2	Pl. Pl.	Sl (pr, h); Cs; 2 tl.
Badlapur; 7-0	Kulgaon; 7-0; ..	.. ..	.. 0-1	W.	Sl (pr); Khandoba Fr. MaghSud.15;3tl;gym.
Kalyan; 9-0	Kalyan; 9-0; Thu.	.. ..	.. ..	..	Sl (pr).
Kalyan; 4-0	Kalyan; 4-0; ..	.. ..	Stage; ..	W.	Sl (pr); Fr. Ct. 15; 7 tl.
.. .. Badlapur; 11-½ Ambarnath; 4-0	Badlapur; 10-0; .. .. ..	.. ..	.. 2-0 .. 2-0	W; rv. W.	Sl (pr); tl. Sl (pr); Cs; 2 tl.
.. .. Badlapur; 10-0	.. .. .. ..	.. ..	Local;	W; rv. ..	Sl (pr); 2 tl. 2tl.
.. ..	.. ..	.. ..	Local; ..	W.	Sl (pr); Cs.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Rahatoli; UNR. रहाटोली	.. SE ..	814; 627; 90; 285	.. 1-0
Sagaon; UNR. सागाव	.. E 18-0	471; 131; 23; 39	Badlapur; 10-0
Sai; UNR. साई	.. SE ..	297; 401; 88; 117	Kulgaon; 7-0
Savare; UNR. सावरे	.. SE 13-½	656; 582; 91; 198	Badlapur; 2-½
Savaroli; UNR. सावरली	.. SE ..	1329; 199; 39; 112	Kulgaon; 4-½
Shil Tarf Chon; UNR शील तर्फ चोण	.. SE 14-0	1228; 374; 73; 179	.. 6-0
Shiravali; UNR. शिरवली	.. S ..	179; 215; 33; 120	.. ..
Shirgaon; UNR. शिरगाव	.. SE 8-0	1832; 734; 119; 264	Kulgaon; 1-0
Sonavale; UNR. सोनावळे	.. SE ..	1095; 189; 36; 65	.. 4-0
Sonivali; UNR. सोनिवली	.. SE ..	464; 399; 76; 131	Badlapur; 1-0
Tan; UNR. तान	.. SE ..	181; 25; 5; 14	.. ..
Umbroli; UNR. उंब्रोली	.. SW ..	473; 528; 86; 113	.. ..
Umbroli; UNR. उंब्रोली	.. SE 16-0	562; 85; 15; 42	Kulgaon; 4-0
Usatane; UNR. उसाटणे	.. SW 7-0	752; 558; 106; 158	Wadi; 3-½
Ulharnagar urban area XXI; उल्हासनगर नागरी विभाग XXI;	.. HQ ..	13,34; 1,68,462; 32,571; 155	.. ..
Vadavali-Included in urban area XXII; UNR. वडवली नागरी विभाग XXII मध्ये समाविष्ट	S ..	.. ..	.. ..
Vadol-Included in urban area XXI; UNR. वाडोल नागरी विभाग XXI मध्ये समाविष्ट	NW ..	.. ..	.. ..
Valivali; UNR. वाळीवली	SE 5-0	515; 968; 152; 224	Kulgaon; 0-2
Vangani; UNR. वांगणी	S 14-0	873; 2140; 354; 296	Local; ..
Varade; UNR. वराडे	.. SE 17-0	461; 119; 20; 28	Kulgaon; 5-0
Vasar; UNR. वसार	.. SW ..	1224; 2265; 319; 626	Mangrul; 2-0
Vashivali Bhokri; UNR. वाशिवली भोकरी	.. E ..	1648; 1448; 386; 94	.. ..
Wadi; UNR. वाडी	.. SW 16-0	711; 1936; 948; 304	Local; ..
Yeranjad; UNR. येरंजाड	.. SE 10-0	829; 1192; 181; 203	.. 2-0
Yeve; UNR. येवे	.. SE ..	2093; 310; 67; 58	Badlapur; 7-½
WASAI TALUKA			
Achole; WSI. आचोळे	.. NE 8.0	1974; 2389; 451; 557	Gokhivare; 2-0
Adne; WSI. अडणे	.. NE 19-0	1677; 1025; 173; 425	Bhatane; 1-0
Agashi; WSI. आगाशी	.. N 18-0	4833; 22057; 3378; 3529	Local; ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and Other information 9
Badlapur; 4-0	.. ..	.. 2- $\frac{1}{2}$	W; rv.	SI (pr); Cs; 2 tl.
Badlapur; 11- $\frac{1}{2}$	Badlapur; 7-0; ..	.. 2-2	Pl.	3 tl.
Badlapur; 7-0	Kalyan; 22-0; Thu.	Badlapur; 2- $\frac{1}{2}$	W.	SI (pr); tl.
Badlapur; 2- $\frac{1}{2}$	Kalyan; 21-0; Thu.	Kulgaon; 4-0	W.	..
Badlapur; 4- $\frac{1}{2}$	.. ..	.. 6-0	W.	SI (pr); Cs; tl.
.. 2-0	.. ..	.. ..	..	..
..
Badlapur; 1-0	Kulgaon; 1-0; ..	Kulgaon; 1-0	Pl.	SI (pr); gym.
Badlapur; 8-0	Kulgaon; 8-0; ..	.. 0-1	W.	SI (pr); Ct. Sud. 15; 2tl.
Badlapur; 1-0	Kulgaon; 1-0; ..	.. 0- $\frac{1}{2}$	W; rv.	SI (pr); Cs; 2 tl.
..
..
Badlapur; 4-0	.. ..	.. 1-0	W.	SI (pr); tl.
.. ..	Taloja; 4-0; Wed.	Stage; ..	W.	SI (pr); 2 tl.
Local; ..	.. ..	Local; ..	Pl.	SI (pr, h. clg); dp; lib; tl.
..
..
Badlapur; 0-2	.. ..	.. ..	Pl.	SI (pr); Cs; Ct. 15; 3 tl.
Local; ..	.. ..	.. 1-0	W.	3 SI (pr); 2 Cs; Urus; 6tl; mq; 2dg; lib; 6dp.
Badlapur; 5-0	Kalyan; 22-0; Thu.	Kalyan; 5-0	W.	..
Kalyan; 6-0	Kalyan; 6-0; ..	.. 1-0	W.	SI (pr); tl; dp.
..
Kalyan; 10-0	Kalyan; 10-0; ..	.. ..	W.	SI (pr, m); Hajimalang Fr. Feb; 5tl; dg; dh; dp.
.. 0-2	.. 2-0; ..	.. 0-1	..	SI (pr); Cs; tl.
Badlapur; 7- $\frac{1}{2}$	.. ..	Local; ..	W.	SI (pr); tl; dg.
Nala Sopara; 1-0	Sopara; 4-0; Wed.	.. 1-0	W; t.	SI (pr); Hanuman Jayanti Fr. Ct. Pournima; 3 tl.
Wasai Rd; 19-0	Shirvali; 1-0; Sun.	.. 1-0	W.	SI (pr); Hanuman Jayanti Fr. Ct. Pournima, and Kt. Pournima; tl.
Virar; 3-0	Local; .. Mon.	Local; ..	W.	6 SI (3 pr, 2m, h); 2 Cs; 7tl; mq; lib; 4dp; Cch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Amboode; WSI. आंबोडे	.. NE 24-4	372; 232; 36; 89	Sagawan; ..
Bapane; WSI. बापाने	.. NE ..	541; 164; 33; 80	.. ..
Barampur; WSI. बरामपूर	.. N 1-4	242; 1118; 125; 19	Sandor; ..
Bhaliwadi; WSI. भालीवली	.. NE 17-0	608; 164; 38; 82	.. 1-4
Bhatane; WSI. भाताने	.. NE 22-0	6068; 2508; 420; 1143	Local; ..
Bhinar; WSI. भिनार	.. NE 19-0	653; 487; 77; 179	Sayawan; 1-0
Bhuigaon; Bk. WSI. भुईगांव बुद्रुक	.. N ..	902; 2370; 315; 450	.. ..
Bhuigaon Kh.; WSI. भुईगांव खुर्द	.. N ..	514; 1399; 225; 475	.. ..
Bolinj; WSI. बोलीज	.. N 6-0	1687; 3571; 582; 439	Local; ..
Chandansar; WSI. चंदनसार	.. N ..	2554; 2553; 437; 736	.. ..
Chandip; WSI. चांदीप	.. NE 10-0	1001; 1034; 193; 380	Local; ..
Chikhaldongre; WSI. चिखल डोंगरे	.. N 12-0	2061; 815; 124; 435	Agashi; 1-4
Chimane; WSI. चिमणे	.. NE 20-0	879; 100; 17; 31	.. ..
Chinchoti; WSI. चिंचोटी	.. NE 12-0	3360; 561; 111; 186	Kaman; 2-0
Chulni; WSI. चुळणी	.. N 3-0	771; 1589; 264; 165	Wasai Rd; 2-0
Dahisar; WSI. दहीसर	.. NE 15-0	2478; 1927; 373; 726	Local; ..
Deodal; WSI. देवदळ	.. NE 11-4	564; 314; 47; 163	Kaman; 1-0
Dhaniv; WSI. धानीव	.. NE 10-0	1226; 873; 142; 424	Pelhar; 2-0
Dhotali; WSI. धोवली	.. NE ..	Included in Urban Area	
Diwanman; WSI. दीवानमान	.. N 3-0	1070; 2008; 375; 118	Navghar; 0-1
Gas; WSI. गस	.. N 5-1	1664; 4146; 748; 1007	Sopara; 3-0
Gaskopari; WSI. गसकोपरी	.. N ..	286; 298; 53; 64	.. ..
Girij; WSI. गिरीज	.. NE 4-0	572; 1410; 263; 246	.. ..
Gokhivare; WSI. गोखिवरे	.. NE 6-0	1416; 2960; 571; 517	Local; 0-3
Hedavade; WSI. हेदवडे	.. NE 7-4	168; 83; 12; 32	.. 1-4
Juchandra; WSI. जुचंद्र	.. NE ..	4036; 3157; 661; 474	.. ..
Kalbhone; WSI. कळसोण	.. NE 24-0	.. 486; 76; 203	Sayawan; ..
Kaman; WSI. कामण	.. NE 12-0	5721; 1620; 297; 426;	Local; ..
Kanher; WSI. कण्हेर	.. NE 14-0	2020; 1172; 243; 532	Chandip; 2-4
Karadi (1); WSI. कराडी (१)	.. NW 2-0	61; 565; 85; 64	Sandor; ..
Karadi (2); WSI. कराडी (२)	.. NW ..	Included in Urban Area V.	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and Other information 9
Wasai Rd; 20-0	Vajreshwari; 4-0; ..	.. 1-0	W.	tl.
..
Wasai Rd; ..	Manipur; .. Daily.	Local; ..	W.	tl; dp; pyt.
Virar; 12-4	Mandvi; 5-0; Thu.	.. ..	W.	tl.
Virar; 22-0	Mandvi; 4-0; Thu.	.. 2-4	W; t.	4 Sl (4 pr); 3 Cs; Hanu- man Jayanti Fr; 2tl; dh.
Wasai Rd; 19-0	Shirvali; 3-0; Sun.	.. 1-0	W.	Sl (pr); Hanuman Jayanti Fr. Ct. Pournima; tl.
..
..
Virar; 0-3	Virar; 0-3; Sat.	Local; ..	W.	2 Sl (pr); Cs; tl; mq; dg; 3 dp.
..
Virar; 10-0	Mandvi; 0-4; Thu.	Local; ..	W.	2 Sl (pr, m); Cs; (mp); Devi Fr; Akshay tritiya; 2 tl; lib.
Virar; 2-0	Agashi; 1-4; Mon.	Agashi; 1-4	T.	Sl (pr); Ct. Amvashya Fr; 2 tl.
.. 12-0	.. 5-0; Thu.	.. 2-0	W.	2 Sl (pr); tl.
Wasai Rd; 12-0	Local; .. Sun.	Local; ..	W; rv.	Sl (pr); 2 tl.
Wasai Rd; 2-0	Papadi; 0-6; Fri.	.. 1-0	W.	Sl (pr); Cs; lib; dp; Cch.
Virar; 4-0	Virar; 4-0; Sat.	.. 3-0	W.	4 Sl (pr); Ct. Sud. Pour- nima Fr. 4 tl; gym; ch; lib; dp.
Wasai Rd; 7-0	Kaman; 1-0; Tue.	Kaman; 0-4	W.	tl.
Nala Sopara; 2-0	Nala Sopara; 2-0; Wed.	Local; ..	W.	Sl (pr).
..
Wasai Rd; 0-1	Manikpur; 0-1; Daily.	Manikpur; 0-1	W.	Sl (pr).
Nala Sopara; 1-0	Sopara; 1-0; Sun. Wed.	Local; ..	W.	3 Sl (3 pr); Cs; 4 tl; 4 dg; lib; Cch.
..
Wasai Rd; 5-0	Holi; 3-0; Daily.	Local; ..	W.	Sl (pr); tl; dp.
Wasai Rd; 2-0	Local; .. Daily.	Local; ..	W.	3 Sl (pr); 3 Cs; 4 tl; lib; 2 dp; Cch.
.. 7-4	.. 5-0; Thu.	.. 1.4	W.	tl.
..
Wasai Rd; 20-0	Vajreshwari; 4-0; ..	.. 2.0	W.	Sl (pr); Hanuman Jayanti Fr. Ct. Pourni- ma; 2 tl.
Wasai Rd; 8-0	Local; .. Tue.	Local; ..	W.	Sl (pr); 2 tl; mq; dg; ch; lib; 4 dp.
Virar; 11-0	Mandvi; 1-4; Thu.	Local; ..	W; t.	Sl (pr); Cs; 3 tl; dg.
Wasai Rd; 5-0	Holi; 0-1; Daily.	Stage; ..	W.	3 Sl (pr, h).
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Karajon; WSI. करजोण	NE 25-0	3564; 467; 104; 271	.. 2-4
Kashidkopar; WSI कशीद कोपर	NE ..	922; 1094; 187; 446	Chandip; 1-0
Kaular Bk; WSI. कौलार बुद्रुक	N 2-0	1249; 6721; 1119; 1572	Sandor; 1-4
Kaular Kh; WSI. कौलार खुद	NE 1-4	416; 1578; 294; 165	Sandor; 0-1
Khanivade; WSI. खानिवडे	NE 15-0	712; 929; 185; 389	Local; ..
Kiravali(1); WSI. कीरवली (१)	NE 2-0	334; 1452; 217; 166	Papadi; 0-2
Kiravali(2); WSI. कीरवली (२)	NE ..	Included in Urban Area V.	
Kolhi; WSI. कोल्ही	NE 12-0	646; 544; 78; 120	Kaman; 2-0
Kopharad; WSI. कोफराड	N 6-0	406; 2809; 286; 293	Virar; 2-0
Koshimbe; WSI. कोशिंबे	NE 16-0	2299; 1635; 271; 587	Dahisar; 2-0
Majivali; WSI. माजिवली	NE 19-0	2299; 779; 143; 360	Parol; 1-0
Malonde; WSI. मालोडे	NE ..	Included in Urban Area V.	
Mandvi; WSI. मांडवी	NE 10-0	399; 315; 72; 101	Chandip; 0-3
Manikpur; Urban Area; VIII; WSI. माणिकपूर नगरी विभाग ८	N 3-0	4-15; 7,610; 1,444; 51	Local; ..
Mardes; WSI. मरदेस	N 6-0	413; 1157; 178; 229	Virar; 2-0
Medhe; WSI. मेढे	NE 24-0	3102; 434; 71; 170	Sayawan; 3-4
Mulgaon (1); WSI. मुळगाव (१)	NE ..	633; 4242; 612; 320	.. ..
Mulgaon (2); WSI. मुळगाव (२)	NE ..	Included in Urban Area V.	
Nagle; WSI. नागले	E 21-4	2437; 598; 111; 280	Kaman; 8-0
Naigaon; WSI. नायगाव	E 2-0	111; 2596; 419; 37	Local; ..
Nale; WSI. नाळे	N 6-0	116; 1195; 163; 170	.. 2-0
Naringi; WSI. नारींगी	N 8-0	2475; 3651; 658; 543	Virar; 1-0
Navghar; WSI. नवघर	NE 3-4	303; 2377; 275; 9	Local; ..
Nawale; WSI. नवाळे	N 5-0	341; 1303; 198; 475	Sopara; 2-0
Nilmore; WSI. निळमोरे	N 7-0	1487; 1712; 368; 194	Sopara; 1-4
Nirmal; WSI. निर्मळ	N ..	103; 745; 146; 137	.. ..
Panju; WSI. पंजु	N 3-0	663; 994; 172; 102	Bhayandar; 2-0
Parol; WSI. पारोळ	NE 11-0	1082; 661; 111; 204	Local; ..
Pelhar; WSI. पेल्हार	NE 10-0	1205; 2017; 388; 1025	Local; ..
Poman; WSI. पोमन	E 26-0	2622; 1028; 209; 403	Kaman; 2-4

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and Other information 9
Virar; 15.0	Shirvali; 1.4; Sun.	Shirvali; 1.4	W; rv.	Sl (pr); tl; ch.
Virar; 10.0	Mandvi; 1.0; Thu.	Sirsad; 1.4	W.	Sl (pr); tl; lib; 2 dp; Cch.
Wasai Rd; 3.0	Holi; 1.4; Daily	Local; ..	W.	Sl (pr); 2 tl; lib; Cch.
Wasai Rd; 3.0	Holi; 0.3; Daily	Local; ..	W.	4 Ch; lib; Cch.
Virar; 10.0	.. 10.0; Thu.	Local; ..	W.	Sl (pr); Cs. Holi Fr; 2 tl; dg; dh; lib; dp.
Wasai Rd.; 3.0	Papadi; 0.3; Fri.	Local; ..	W.	Sl (pr); Cs. Fr. on Ct. Sud. 15; 2 tl; mq; Cch; lib.
Wasai Rd; 10.0	Chinchati; 2.0; Sun.	Local; ..	W; rv.	Sl (pr); 2 tl; dp.
Virar; 5.0	Virar; 3.0; Sat.	.. ..	W.	2 Sl (pr, m); tl.
Virar; 6.0	Virar; 8.0; Sat.	Kanher; 4.0	W; t.	Sl (pr); lib.
Wasai Rd; 19.0	Shirvali; 1.0; Sun.	Parol; 1.0	W.	Sl (pr).
Virar; 10.0	Local; .. Thu.	Local; ..	W.	tl; dp.
Wasai Rd; 1.0	Wasai; 1.4; Daily	Local; ..	W.	6 Sl (2 pr, 2 m, 2 h); tl; lib; 5 dp; Cch.
.. 3.0	.. 2.0; ..	.. ..	W.	Sl (pr); Gudipadwa Fr; tl.
Wasai Rd; 20-0	Vajresh- wari; 5-0; ..	.. 3-4	W.	Sl (pr); tl.
..
..
Wasai Rd.; 18-0	Kaman; 8-0; Fri.	Kaman; 8-0	W.	Sl (pr); Fr. on Vsk. 7; tl.
Local; ..	Papadi; 1-0; Fri.	Local; ..	W.	Sl (pr); Cs.; tl; lib.
Virar; 5-0	.. 3-0; ..	.. ..	W.	2 Sl (pr, m); Raninavami Fr; tl; lib; 2 dp.
Virar; 1-0	Virar; 1-0; Sat.	Virar; 1-0	W.	2 Sl (2 pr); Cs.; Fr; Ct. Ekadashi 8 4 tl.
Wasai Rd.; ..	Manikpur; 0-1; Daily	Local; ..	W.	3 Sl. (pr, h, clg.); 2 tl; dh; ch; 2 dp.
.. 5-0	Sopara; 1-0; Sun., Wed.	.. ..	W.	Sl (pr.).
Nala- sopara; ..	Sopara; 1-4; Sun., Wed.	Local; ..	W.	Sl (pr); Cs; Devi Fr; 2 tl; dg.
..
Naigaon; 1-0	Papadi; 2-0; Fri.	.. ..	t.	Sl (pr); Fr. in May; tl.
Wasai Rd.; 11-0	Mandvi; 1-4; Thu.	Local; ..	W.	Sl (pr); tl; lib; dp.
Wasai Rd.; ..	Mandvi; 4-0; Thu.	Local; ..	W.	Sl (pr); ch.
Naigaon; 16-0	Kaman; 2-4; Fri.	Kaman; 2-4	W.	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction: Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Rajavali; WSI. राजावली	NE 6-0	3092; 1609; 304; 496	Manikpur; 2-0
Rajodi; WSI. राजोडी	N ..	573; 1902; 291; 463	.. ..
Sakawar; WSI. सकवार	NE 20-0	5853; 1050; 178; 423	.. 3-0
Saloli; WSI. सालोली	N 3-0	548; 3272; 637; 303	Sandor; 3-0
Sandor; WSI. सांदोर	NE ..	Included in Urban Area V.	Local; ..
Sandor; Urban Area VII; WSI. सांदोर नागरी विभाग ७	NE 2-0	4.87; 6,705; 1,145; 849	Local; ..
Sarjamori; WSI. सरजामोरी	NE 24-0	916; 553; 101; 242	Kaman; 1-0
Sasunaghar; WSI. ससून घर	NE 25-0	5197; 1865; 337; 563	Kaman; 5-0
Sativali; WSI. सातीवली	NE 7-0	2778; 773; 136; 51	Gokhi- 2-0 vare;
Sayawan; WSI. सायवान	NE 24-0	2012; 807; 146; 287	Local; ..
Shilottar; WSI. शिलोत्तर	E 28-0	82; 146; 25; 51	.. 5-0
Shirgaon; WSI. शिरगाव	NE 13-0	3084; 1671; 295; 604	Chandansar; 1-0
Shirsad; WSI. शिरसाड	NE 13 0	673; 561; 95; 120	Chandip; 1-4
Shirvali; WSI. शिरवली	NE 19-0	732; 560; 120; 248	Parol; 0-7
Shivansai; WSI. शिवनसई	NE 10-0	875; 458; 82; 123	Parol; 0-2
Sopara; WSI. सोपारा	N 11-0	200; 4249; 722; 110	Local; ..
Tilhear WSI. तिल्हेर	.. ..	4249; 1296; 242; 606	.. ..
Tulinj; WSI. तुलींज	N 7-4	360; 1485; 319; 99	Sopara; 2-0
Umele; WSI. उमेळे	NE ..	1230; 1513; 249; 81	.. ..
Umelman; WSI. उमेळमान	N 4-0	808; 1345; 247; 57	Wasai Rd; 1-0
Umrle; WSI. उमराळे	N 8-2	771; 5328; 712; 922	Sopara; 0-4
Usgaon; WSI. उसगाव	NE 10-2	1026; 536; 111; 294	Bhatane; 1-0
Vadavali; WSI. वडवली	N 2-4	389; 1927; 309; 206	Papadi; 1-0
Vadghar; WSI. वडघर	NE 24-0	993; 480; 75; 240	Sayawan; 3-0
Vatar; WSI. वटार	N 10-80	1383; 5389; 683; 1257	Local; ..
Virar; Urban Area VI; WSI. विरार नागरी विभाग ६	N 20-0	9.56; 12,713; 2,488; 536	Local; ..

Railway Station; Distance		Weekly Bazar; Distance; Bazar Day		Motor Stand; Distance		Drinking Water facilities	Institutions and other information
5		6		7		8	9
Wasai Rd.;	2-0	Manikpur; 5-0; Daily		Manikpur; 3-0		W.	3tl.
..
..	12-0	..	6-0; Tue.	Local; ..	..	W.	2 Sl (2 pr); 3 tl.
Wasai Rd.;	4-0	Holi; 1-4; Daily		..	..	W.	2 Sl (2 pr); Cs; tl; lib.; Cch.
..
Wasai Rd.;	5-0	Holi; 0-1; Daily		Local; ..	..	W.	5 Sl (2 pr., m, h); 5 Cs.; 5 tl; gym; 3 lib; dp; 2 Cch.
Naigaon; 20-0		Kaman; 1-0; Fri.		Kaman; 1-0		W.	Sl (pr).
Wasai Rd.; 25-0		Kaman; 5-0; Fri.		Local; ..		W.	3 Sl (3 pr.); Fr. on Vsk. Sud. 8; 3 tl.
Wasai Rd.; 3-0		Kaman; 4-0; Tue.		Local; ..		W; rv.	Sl (pr); Cs; Caondevi Fr. Ct. 7; tl.
Wasai Rd.; 20-0		..	..	Local; ..		W.	Sl (pr.); Cs.; tl.
Naigaon; 13-4		Kaman; 5-0; Fri.		..	5-0	W.	....
Virar; 3-0		Virar; 3-0; Sat.		..	0-1	W.	2 Sl (2 pr); Cs; Fr. Sud. Pournima; 2 tl. gym; Ch.
Wasai Rd; 10-0		Mandvi; 0-6; Thu.		Local; ..		W; t.	Sl (pr); Ch.
Wasai Rd; 19-0		Local; .. Sun.		Local; ..		W.	Sl (pr); Cs; Hanuman jayanti Sud. Pournima; tl; lib.
Virar; 10-0		Mandvi; 0-2; Thu.		Local; ..		W.	tl; dg.
Nalasopara; 0-5		Local; .. Sun, Wed.		Local; ..		W.	5 Sl (3 pr, 2 h); 2 tl; 3 mq; dg; lib.
..
Nalasopara; 0-4		Sopara; 2-0; Sun, Wed.		..	0-4	W.	Sl (pr).
..
Wasai Rd.; 1-0		Papadi; 1-0; Fri.		..	0-4	W.	Sl (pr); Fr; Ct. Sud. Pournima; tl.
Nalasopara; 1-0		Sopara; 0-4; Sun, Wed.		Local; ..		W.	5 Sl (4 pr, h); Cs (mp); 2 tl; m; mq; 2 dg; gym; lib; 2 dp; 3 Cch.
Virar; 10-0		Mandvi; 1-0; Thu.		Local; ..		W.	Sl (pr); tl.
Naigaon; 2-0		Papadi; 1-0; Fri.		..	1-4	W.	2 Sl (2 pr); Cs; Fr. on 18th Dec; tl; mq; 2 dg; 3 dp; Cch.
Wasai Rd.; 20-0		Vajreshwari; 5-0 ..		Sayawan; 3-0		W.	Sl (pr); tl.
Virar; 5-0		Virar; 5-0; Sat.		Local; ..		W.	4Sl; Cs; lib; 2dp.
Local; ..		Local; .. Sat.		Local; ..		W; pl.	6 Sl (5 pr, m); Cs; 7 tl. mq; dh; ch; lib; 16 dp;

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Wagholi; WSI. वाघोळी	N 8-0	1335; 6947; 1061; 1536	Virar; 4-0
Wasai; Urban area V. वसई नागरी विभाग ५	HQ; ..	8.00; 30,594; 5,575; 805	.. ..
Waliv; WSI. वालीव	NE 7-0	1172; 1431; 305; 330	Gokhivare; 2-0
VADA TALUKA			
Abitghar; VAD. अबीटघर	S 7-0	1754; 723; 122; 337	Local; ..
Abye; VAD. आबजे	SW 10-0	1792; 1051; 189; 369	Khanivali; 2-0
Ainshet; VAD. ऐनशेट	S 0-7	439; 464; 67; 205	Vada; 7-0
Alman; VAD. आलमन	SW 6-0	1582; 359; 62; 178	Vada; 6-0
Amgaon; VAD. आमगाव	NW 12-0	1279; 622; 93; 310	Kanchad; 4-0
Ambhai; VAD. आमई	NW 11-0	1278; 248; 49; 109	Kanchad; 4-0
Ambiste Bk.; VAD. आंबिस्ते बु.	SW 11-0	1457; 560; 82; 322	Khanivali; 0-3
Ambiste Kh.; VAD. आंबिस्ते खुर्दे	SW 12-0	566; 594; 74; 186	Palsai; 2-0
Ambivali; VAD. आंबिचली	NW 12-0	1024; 469; 83; 121	Kanchad; 3-0
Asnas; VAD. असनास	SW 15-0	2252; 332; 60; 159	Khanivali; 4-0
Avandhe; VAD. अवधे	SW ..	1953; 339; 63; 102	.. ..
Balivali; VAD. बालीवली	E 5-0	797; 429; 76; 153	Sonale; 3-0
Bavali; VAD. बावळी	S 8-0	712; 192; 37; 199	.. 0-6
Bersheti; VAD. बेरशेटी	S 15-0	264; 64; 13; 28	.. 6-0
Bhāveghar; VAD. भावेघर	SW 11-0	452; 428; 69; 230	Khanivali; 0-3
Bhopivali; VAD. भोपिचली	W 10-0	531; 229; 42; 63	Gorha; 2-0
Bilavali; VAD. बिलवली	SW 10-0	671; 564; 93; 260	Kudus; 2-0
Bilghar; VAD. बिलघर	E 6-0	664; 374; 52; 175	Sonale; 0.4
Biloshi; VAD. बिलोशी	SW 11-0	1519; 690; 145; 351	Khanivali; 1-0
Borande; VAD. बोरांडे	SW 14-0	610; 324; 40; 149	Khanivali; 3-0
Bramhangaon; VAD. ब्राह्मणगाव	NW 11-4	343; 321; 48; 141	.. ..
Budhaval; VAD. बुधावली	SW 12-0	446; 543; 100; 162	Khupuri; 2-0
Chamble; VAD. चंबळे	SW 20-0	917; 841; 146; 408	Local; ..
Chendavali; VAD. चेंदवली	SE 12-4	701; 194; 39; 104	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6	Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and Other information 9
Nala Sopara; 3-0	Local;	Local; ..	W.	Sl (pr); 2 Cs; (1) Vaghe- shwari devi Fr. Ct. Vad. 1; (2) Tripuri Pournima Fr; (3) Vai- shakhi Pournima Fr; 4 tl; lib; 8 dp.
Local; ..	.. ..	Local; ..	W; pl.	Sl (pr, h, clg); dp; hp; Cch; tl.
Wasai Rd; 3-0	.. 5-0; ..	Local; ..	W; rv.	Sl (pr); Cs; Valva devi Fr. Ct. Vad. 9; 3tl; dp.
.. ..	Kudus; 6-0; Fri.	.. 0-4	W.	Sl (pr); Cs; mq; 3 tl.
Palghar; 29-0	Khanivali; 2-0; Tue.	Khani- vali; 2-0	W; rv.	Sl (pr); Cs; tl.
Palghar; ..	Kudus; 10-0; Fri.	Vada; 0-7	W.	Sl (pr); Cs; 5 tl; lib.
Palghar; 34-0	Gorha; 6-0; Sun.	Varale; 3-0	W; rv.	Sl (pr); tl.
.. ..	Gorha; 3-0; Sun.	.. 1-0	W.	Sl (pr).
Palghar; 14-0	Gorha; .. Sun.	.. 1-0	W.	Sl (pr).
Palghar; 27-0	Khanivali; .. Sun.	.. 0-1	W.	Sl (pr).
Palghar; 26-0	Khanivali; 3-0; Tue.	.. 0-1	W; t.	Sl (pr); tl; m; dg.
Palghar; 24-0	Gorha; 2-0; Tue.	.. ..	W; rv; t.	3Sl(pr.m.h.); Cs; Hanu- man Jayanti Fr. Ct. Sud 15; 2 tl; gym.
Palghar; ..	Kudus; 5-0; Sun.	Kanc- had; 3-0	W.	Sl (pr); tl.
.. ..	Kudus; 10-0; Fri.	.. 3-0	W.	Sl (pr.); tl.
.. ..	Vada; 5-0; ..	.. ..	W.	2 Sl (pr, m); Hanuman Jayanti Ct. Pournima; tl; mq; ch; lib.
Thane; 35-0	Kudus; 10-0; Fri.	.. 1-0	W.	....
.. ..	.. ..	.. ..	W.	....
Thane; 26-0	Khanivali; 0-3; Tue.	.. 0-1	W.	Sl (pr).
Palghar; 22-0	Gorha; 2-0; Sun.	.. 0-1	W.	Sl (pr); tl.
Thane; 32-0	Kudus; 2-0; Fri.	Kudus; 2-0	W.	Sl (pr); 2 tl; gym.
Vada; 14-4	Vada; 6-0; ..	Vada; 6-0	W; t.	Sl (pr); Cs; tl.
Thane; 26-0	Khanivali; 1-0; Tue.	Khani- vali; 1-0	W.	Sl (pr).
Palghar; ..	Kudus; 10-0; Fri.	Local; ..	W.	Sl (pr); tl.
Palghar; 13-0	Gorha; 4-4; Sun.	Kanc- had; 2-4	W.	Sl (pr); tl.
Kalyan; 24-0	Kudus; 2-4; Fri.	Kudus; 2-4	W.	Sl (pr); tl.
Vasai Rd; 22-0	Ambadi; 3-0; Sun.	.. 2-0	W.	Sl (pr); Cs; Rangpan- chami Fr. March; 2 tl.
Kalyan; 32-0	Kudus; 7-0; Fri.	.. ..	W.	....

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Chikhale; VAD. चिखले	.. S 4-4	1464; 518; 78; 214	Neharoli; 0-4
Chinchghar; VAD. चिंचघर	.. SW 11-0	569; 940; 155; 272	Kudus; 1-0
Dabhon; VAD. दामोण	.. N 14-0	835; 180; 33; 76	Gargaon; 3-0
Dadharc; VAD. दाडरे	.. E 8-0	1887; 284; 52; 92	Sonale; 4-0
Dane; VAD. दाणे	.. NE 3-0	1523; 582; 102; 242	Vada; 3-0
Dahivali Kumbhiste; VAD. दहीवली कुम्भिस्ते	.. NE 5-0	1573; 368; 66; 138	Vada; 5-0
Dakivali; VAD. डाकीवली	.. SW 14-0	807; 950; 152; 294	Chamble; 1-0
Desai; VAD. देसाई	.. NE 1-3	401; 147; 30; 45	Vada; 1-0
Devali Tarf Kohoj; VAD. देवळी तर्फ कोहोज	.. W ..	332; 321; 45; 121	.. ..
Devali Tarf Vada; VAD. देवळी तर्फ वाडा	.. N 3-0	783; 326; 57; 150	Vada; 3-0
Devgaon; VAD. देवगाव	.. S 8-0	952; 431; 68; 205	Abita- ghar; 3-0
Devghar; VAD. देवघर	.. SW 12-0	1245; 690; 115; 337	Khani- vali; 3-0
Dhapad; VAD. धापड	.. NE 6-0	598; 153; 25; 70	Sonale; 5-0
Dongaste; VAD. डोंगस्ते	.. SW 12-0	763; 963; 148; 425	Kudus; 2-0
Gale; VAD. गाळे	.. NE 1-7	337; 224; 39; 118	Vada; 1-7
Galtare; VAD. गाळतरे	.. W 16-0	1677; 803; 145; 417	Gorha; 4-0
Gandhare; VAD. गंधारे	.. S 1-0	917; 856; 127; 412	Vada; 1-0
Gargaon; VAD. गारगाव	.. NE 10-0	3530; 1297; 235; 654	Local; ..
Gates Bk; VAD. गतेस बुद्रुक	.. SW 3-0	579; 611; 82; 305	Local; ..
Gates Kh.; VAD. गतेस खु.	.. SW 4-0	492; 352; 51; 165	Gates Bk; 1-0
Ghonasi; VAD. घोणसी	.. SW ..	809; 434; 66; 120	.. ..
Gorad; VAD. गोरड	.. SW 18-0	865; 605; 115; 339	Vajre- shwari; 1-0
Gorha; VAD. गोन्हा	.. 10-0	1149; 1374; 242; 346	Local; ..
Gourapur; VAD. गौरापुर	.. SW 14-0	1573; 743; 146; 227	Palsai; 2-0
Guhir; VAD. गुहीर	.. NW 16-0	436; 507; 75; 247	Hamra- pur; 1-0
Gunj; VAD. गुंज	.. SW 14-0	2184; 457; 70; 164	Khani- vali; 4-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and Other information
5	6	7	8	9
Thane; 35-0	Kudus; 5-0; Fri.	.. ..	W.	Sl (pr); tl.
Kalyan; 24-0	Kudus; 2-0; Fri.	Kudus; 1-0	W.	3 Sl (pr); pyt; Cs; Ganapati Fr; 3 tl.
.. 20-0	.. ..	.. ..	W.	Sl (pr); tl.
.. ..	.. ..	Parail; 4-0	W.	Sl (pr); tl.
Palghar; 27-0	Vada; 3-0; ..	.. 0-2	W.	Sl (pr); tl.
Palghar; 29-0	Vada; 5-0; ..	Dahe; 2-0	W.	Sl (pr); tl.
Vasai Rd; 22-0	Kudus; 4-0; Fri.	.. 1-0	W.	....
Palghar; 28-0	Vada; 1-3; ..	Vada; 1-3	W.	Sl (pr).
..
Palghar; 27-0	Vada; 3-0; ..	Vada; 3-0	W.	2 tl.
Thane; 27-0	Kudus; 3-0; Fri.	.. 3-0	W.	Sl (pr).
Thane; 35-0	Kudus; 5-0; Fri.	.. 0-2	W.	Sl (pr); Cs.
.. ..	.. ..	Mandva; 3-0	W.	Sl(pr); Hanuman Jayanti Fr. Ct. Pournima; tl.
Kalyan; 24-0	Kudus; 2-0; Fri.	Kudus; 2-0	W.	Sl (pr); pyt; tl.
Kalyan; 36-0	Vada; 1-7; ..	Vada; 1-7	W.	....
Palghar; 16-0	Gorha; 4-0; Sun.	Gorha; 4-0	rv.	Sl (pr); Cs.; 3 tl.
.. ..	Kudus; 9-0; Fri.	.. 0-1	W.	Sl (pr); Cs; 2 tl.
.. 15-0	Vada; 10-0; ..	.. ..	W.	2 Sl (2 pr); Cs; tl; ch.
Thane; 36-0	Kudus; 8-0; Fri.	Shiris-pada; 0-2	W; rv.	Sl (pr); Cs; tl.
Thane; 39-0	Kudus; 1-0; Fri.	.. ..	W.	Sl (pr); Cs; Shankar Fr. Mg. Trayodashi Krishnapaksh; 3 tl.
Vasai Rd; 20-0	Vajreshwari; 1-0; Tue.	Vajreshwari; 0-1	w.	....
Palghar; 20-0	Local; .. Sun.	Local; ..	W.	Sl (pr); tl.
Palghar; 18-0	Khanivali; 2-0; Tue.	.. 1-0	W.	2 Sl (pr,m); Cs(fmg); Ramnavami Fr. Ct. Sud 9; 10 tl; dg; ch; lib; dp.
Palghar; 16-0	Manor; 4-0; Sat.	Karalgaon; 2-0	W.	SK(pr); Hanuman Jayanti Fr. Ct. Sud. Pournima; 2 tl.
Thane; 34-0	Kudus; 4-0; Fri.	Kudus; 4-0	W; t.	Sl (pr); Cs; Mahashivratri Fr. Mg. Vad. 4.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Hamrapur; VAD. हमरापुर	.. NW 15-0	1835; 953; 138; 535	Local;
Harosale; VAD. हरोसाले	.. N 2-0	532; 315; 58; 110	Vada; 2-0
Indgaon; VAD. इंदगांव	.. NW 10-0	1860; 753; 134; 411	Kanchad; 3-0
Jale; VAD. जाले	.. S 14-0	488; 195; 52; 98	.. 6-0
Jamghar; VAD. जमघर	.. SW 6-0	899; 559; 94; 161	.. 1-0
Kadivali; VAD. कादीवली	.. NW 1-0	344; 147; 26; 92	Vada; 1-0
Kalambhai; VAD. कलमबाई	.. SW 16-0	1372; 362; 69; 194	Khani- vali; 3-0
Kalambho; VAD. कळभे	.. E 9-0	2880; 542; 93; 272	Sonale; 3-0
Kalambholi; VAD. कळभोळी	.. E 6-0	349; 121; 16; 50	Sonale; 4-0
Kambare; VAD. कंबारे	.. SE 7-0	1866; 750; 1276; 368	.. 1-0
Kalmakhand; VAD. कळमकांड	.. NW 8-0	1414; 681; 109; 349	Kanchad; 1-0
Kanchad; VAD. कांचड	.. NW 9-0	817; 768; 124; 173	Local; ..
Kapari; VAD. कापरी	.. E 6-0	296; 212; 31; 92	Sonale; 0-4
Karanje; VAD. कारंजे	.. N 3-6	510; 159; 29; 90	Vada; ..
Kasghar; VAD. कासघर	.. E 5-4	574; 356; 56; 144	Sonale; 3-0
Kati; VAD. काटी	.. SW 14-0	402; 147; 25; 69	Khupari; 2-4
Kelthan; VAD. केळठाण	.. SW 18-4	2075; 826; 154; 382	.. 2-0
Khaire-Ambivali; VAD. खैरे आंबिवली	.. SE 13-0	884; 400; 74; 175	.. 3-0
Khaire Tarf Wada; VAD. खैरे तर्फ वाडा	.. N 4-0	459; 242; 36; 97	Vada; 4-0
Khanivali; VAD. खानिवली	.. SW 14-0	465; 1222; 176; 509	Local; ..
Kharivali Tarf Kohoj; VAD. खारीवली तर्फ कोहोज	.. W ..	2979; 1335; 214; 438	Gorha; 2-0
Kharivali Tarf Paulbare; VAD. खारीवली तर्फ पौलबारे	.. SW 8-0	808; 371; 69; 163	.. 1-0
Khupari; VAD. खुपरी	.. SW 8-0	2523; 1132; 185; 496	Local; ..
Khutal; VAD. खुटाल	.. NW 13-0	273; 249; 41; 115	Kanchad; 5-0
Kirawali; VAD. कीरवली	.. W 1-0	181; 147; 27; 59	Vada; 1-0

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day		Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6		7	8	9
Palghar; 20-0	Manor;	3-0; Sat.	.. 1-0	W.	Sl (pr); Cs; 2 tl; lib.
Palghar; 29-0	Vada;	2-0; ..	Vada; 2-0	W.	Sl (pr).
Palghar; 25-0	Gorha;	5-0; Sun.	Kanchad; 3-0	W.	Sl (pr); Hanuman Jayanti Ct. Sud. Pournima; tl.
Thane; 30-0	..	.. ..	.. ..	W.	Sl (pr).
Palghar; 34-0	Kudus;	6-0; Fri.	.. 1-0	W.	2 Sl (pr); Hanuman Jayanti Ct. Sud. Pournima; 4 tl.
Palghar; ..	..	.. ..	Vada; 1-0	W.	....
Palghar; ..	Kudus;	10-0; Fri.	Khani-vali; 3-0	W.	Sl (pr); tl.
Palghar; 11-0	..	.. ..	.. 4-0	W; rv.	Sl (pr); Cs; tl.
Palghar; ..	..	.. ..	Tarana; ..	W.	Sl (pr).
Palghar; ..	Kudus;	6-0; Fri.	.. 5-0	W.	Sl (pr); Cs. (fmg); Hanuman Jayanti Ct. Pournima; 2 tl.
Palghar; 20-0	Gorha;	3-0; Sun.	Kanchad; 0-4	W.	Sl (pr); tl.
Palghar; 22-0	Gorha;	2-6; Sun.	Local; ..	W.	Sl (pr); Cs; Hanuman Jayanti Ct. Sud. Pournima; tl; dp.
Palghar; 14-0	Vada;	6-0; ..	Vada; 6-0	W; rv.	Sl (pr).
Palghar; 30-0	..	.. ..	.. ..	..	....
Palghar; 17-0	Tilase;	0-6; ..	.. ..	W.	Sl (pr); Cs; tl.
Kalyan; 28-0	Kudus;	3-0; Fri.	Kudus; 3-0	W.	....
Vasai Rd; 22-0	Vajreshwari;	.. Tue.	.. 0-4	W.	Sl (pr); Cs; Hanuman Jayanti Fr. Ct. Pournima; lib; 3 tl.
.. ..	..	.. ..	..	W.	Sl (pr); pyt; Cs; tl.
Palghar; 32-0	Kudus;	13-0; Fri.	Vada; 4-0	W.	Sl (pr); tl.
Palghar; ..	Local;	.. Tue.	Local; ..	W.	3 Sl (2pr,h); Cs; tl; ch; dp.
Palghar; 22-0	Gorha;	2-0; Sun.	Gorha; 2-0	W.	2 Sl (pr; m); Cs.
Thane; 18-0	Kudus;	1-4; Fri.	.. 1-0	W.	Sl (pr); Cs; 2 tl.
Thane; 31-0	Kudus;	3-0; Fri.	.. 0-1	W.	2 Sl (pr,m); Cs; Pir Urus Bdp. Vad. 7; dg; 4 tl.
Palghar; 11-0	Manor;	4-0; Sat.	.. 0-1½	W.	Sl (pr); Hanuman Jayanti; tl.
Palghar; 33-0	..	.. ..	Stage; ..	W.	Sl (pr).

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Kolimsarovar; VAD. कोळीमसरोवर	.. NE 7-0	1090; 86; 12; 29	Sonale; 5-0
Kondhale; VAD. कोंढाळे	.. S 20-0	1690; 1189; 187; 566	Kudus; 3-0
Kone; VAD. कोणे	.. S 3-0	1770; 929; 161; 399	Gates Bk; 1-0
Konsai; VAD. कोनसई	.. SW 5-0	799; 462; 61; 125	Neharoli; 1-0
Kudus; VAD. कुडूस	.. SW 10-0	968; 1216; 196; 154	Local; ..
Kundal; VAD. कुंडल	.. NW 11-4	915; 378; 53; 143	Kanchad; 2-4
Kurale; VAD. कुरळे	.. NW 16-0	681; 223; 31; 118	Hamrapur; 1-0
Kuyalu; VAD. कुयल	.. SE 11-0	791; 379; 68; 186	.. ..
Lohope; VAD. लोहोपे	.. SW 18-0	1485; 273; 55; 124	Chamble; 2-0
Lakhamapur; VAD. लखमापूर	.. SW 7-0	602; 231; 32; 59	Neharoli; 1-0
Malonde; VAD. मालोंदे	.. S 3-0	261; 101; 15; 49	Gates Bk; 1-4
Mandava; VAD. मांडवा	.. NE 6-0	3663; 578; 107; 154	Gargaon; ..
Mande; VAD. मांडे	.. W 8-0	827; 496; 89; 241	Kanchad; 1-0
Mangathane; VAD. मांगठाणे	.. S ..	842; 885; 152; 318	.. ..
Mangrul; VAD. मंगरुळ	.. NE 15-0	4299; 751; 139; 448	.. 5-0
Manivali; VAD. मानिवली	.. N 3-0	566; 396; 69; 155	Vada; 3-0
Met; VAD. मेट	.. SW ..	332; 453; 76; 196	.. ..
Mhasroli; VAD. म्हसरोळी	.. NW 13-0	1036; 695; 90; 349	Kanchad; 4-0
Mhaswal; VAD. म्हसवल	.. S 20-0	1470; 586; 112; 263	Kudus; ..
Moj; VAD. मोज	.. E 5-0	1674; 543; 80; 257	Sonale; 1-4
Munguste; VAD. मुंगुस्ते	.. W 10-0	139; 77; 13; 33	Gorha; 0-6
Musarne; VAD. मुसरने	.. SW ..	1407; 571; 86; 161	.. ..
Nane; VAD. नाने	.. W 14-0	2219; 720; 128; 401	Gorha; 2-0
Nare; VAD. नारे	.. S 10-3	708; 860; 154; 331	Kudus; 1-4
Neharoli; VAD. नेहरोली	.. SW 4-2	1328; 939; 149; 415	Local; ..
Nichole; VAD. निचोळे	.. SW 7-0	682; 377; 49; 188	Khanivali; 1-0
Nimbavali; VAD. निंबवली	.. SW 22-0	580; 328; 59; 174	.. ..
Nishet; VAD. निशेत	.. E 10-0	525; 184; 35; 94	Sonale; 3-4
Ogade; VAD. ओगाडे	.. NE 12-0	3079; 473; 94; 250	Parali; 2-0
Pali; VAD. पाली	.. W 4-0	1055; 464; 78; 216	Kanchad; 4-0
Palsai; VAD. पालसई	.. SW 14-0	2511; 748; 110; 260	Kharivali; 3-0
Parali; VAD. परळी	.. NE 10-0	3911; 497; 92; 192	Local; ..

Railway Station; Distance 5		Weekly Bazar; Distance; Bazar Day 6		Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
..	..	..	..	Mandava; 3-0	W.	....
Thane;	26-0	Kudus;	3-0; Fri.	..	W	Sl (pr); 2 tl; m.
Kalyan;	36-0	Neharoli;	0-4; Wed.	..	W; rv.	Sl (pr); Hanuman Jayanti Fr., 2 tl; lib.
Thane;	34-0	Kudus;	6-0; Fri.	Neharoli; 1-0	W; rv.	Sl (pr); Cs.
Kalyan;	26-0	Local;	.. Fri.	Local; ..	W.	2 Sl (2 pr); Pyt; 2 tl; mq; dg; dh; ch; lib; 3 dp.
Palghar;	21-0	Gorha;	5-0; Sun.	Kanchad; 2-4	W.	Sl (pr); tl.
Palghar;	17-0	Manor;	5-0; Sat.	Khutal; 2-0	W.	....
..	..	Kudus;	8-0; Fri.	..	W.	....
Kalyan;	20-0	Vajreshwari;	3-0; Tue.	Vajreshwari; wari;	3-0 W.	Sl (pr); Cs.
Thane;	30-0	Kudus;	6-0; Fri.	..	1-0 W.	Sl (pr); 3tl.
Kalyan;	34-0	Neharoli;	2-0; Wed.	..	0-4 W; rv.	Sl (pr); tl.
..	..	..	..	Stage; ..	W.	Sl (pr); Cs; Hanuman Jayanti Ct. Pournima Fr; 2 tl; lib; dp (vet).
Palghar;	23-0	Gorha;	3-6; Sun.	Local; ..	W.	Sl (pr).
..
Palghar;	35-0	..	..	..	5-0 W.	2 Sl (pr); Cs; tl.
Palghar;	32-0	Kudus;	13-0; Fri.	Vada; 3-0	W.	Sl (pr); tl.
..
..	..	..	..	Kan- chad;	4-0 W.	Sl (pr); 2 tl.
Thane;	26-0	Kudus;	..	..	3-0 W.	Sl (pr); tl.
..	15-0	Vada;	5-0; ..	Vada;	5-0 W.	Sl (pr); Cs; tl.
Palghar;	26-0	Gorha;	0-6; Sun.	Local; ..	W.	....
..
Palghar;	18-0	Gorha;	2-0; Sun.	Gorha; 2-0	W.	Sl (pr); 4 tl.
Kalyan;	23-0	Kudus;	1-4; Fri.	..	0-5 W.	Sl (pr); Cs; mq.
Thane;	32-0	Kudus;	6-0; Fri.	..	.. W.	3 Sl (pr,m,h); Hanuman Jayanti Ct. Pournima Fr; tl.
Thane;	37-0	Kudus;	6-0; Fri.	..	.. W.	Sl (pr); Vithal Rakhumai Fr. Ct. Chaturthi Krishnapaksh; tl.
Vasai Rd;	19-0	..	..	..	0-4 W.	4 tl; m.
..	10-0	..	..	..	2-0 W; rv.	....
Palghar;	42-0	Gargaon;	7-0; ..	..	0-1 W.	Sl (pr); Cs; tl.
Palghar;	25-0	Gorha;	8-0; Sun.	Local; ..	W.	Sl (pr); tl.
Palghar;	..	Kudus;	9-0; Fri.	..	2-0 W.	2 Sl (2 pr); Cs; 3 tl.
Palghar;	40-0	..	..	Local; ..	W.	Sl (pr); tl; ch.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Paste; VAD. पास्ते	.. N 6-0	330; 120; 17; 46	Vada; 6-0
Pethranjani; VAD. पेठरांजणी	.. E 1-0	141; 52; 11; 26	Vada; 1-0
Pik; VAD. पीक	.. N 7-0	1449; 656; 109; 356	Gargaon; 3-4
Pimparoli; VAD. पिंपरोळी	.. E 3-0	1201; 433; 71; 218	Vada; 3-0
Pimplas; VAD. पिंपळास	.. W 10-0	2099; 685; 107; 279	Gorha; 4-0
Pinjal; VAD. पिंजाळ	.. NE 12-0	1269; 432; 88; 203	Gargaon; 2-0
Posheri; VAD. पोशेरी	.. W 5-0	1653; 806; 164; 324	Kanchad; 3-0
Sange; VAD. सांगे	.. W 13-0	1592; 442; 55; 188	Gorha; 1-0
Sapane Bk.; VAD. सापने बुद्रुक	.. NW 4-4	1653; 577; 120; 350	Vada; 4-4
Sapane Kh. VAD. सापने खुर्दे	.. W 4-6	1205; 455; 81; 196	Vada; 4-6
Saparonde; VAD. सापरोडे	.. S 11-0	1019; 328; 67; 177	Kudus; 1-0
Sarasi; VAD. सारसी	.. S 4-0	592; 377; 59; 162	Gates; 2-0
Saraswahal; VAD. सरसवहाळ	.. W 2-4	427; 262; 51; 132	Vada; 2-4
Sasane; VAD. सामणे	.. N 5-0	644; 309; 50; 123	Vada; 4-0
Savarkhand; VAD. सावरखांड	.. S 4-0	620; 299; 47; 167	4-0
Savaroli; VAD. सावरोळी	.. NW 12-0	686; 425; 75; 122	Kanchad; 4-0
Shelo; VAD. शेळे	.. E 6-0	1101; 218; 38; 75	Sonale; 5-0
Shelte; VAD. शेलटे	.. W 10-0	550; 233; 29; 101	Kanchad; 1-0
Shilottar; VAD. शिलोत्तर	.. NE 9-0	925; 208; 32; 101	3-0
Shirsad; VAD. शिरसाड	.. E 5-2	672; 295; 53; 110	Sonale; 3-0
Sonale; VAD. सोनाळे	.. E ..	2771; 33; 143; 382	..
Sonshiv; VAD. सोनशीव	.. NE 3-6	1373; 274; 40; 117	Vada; 3-6
Suponde; VAD. सुपोडे	.. NW 11-0	1074; 453; 94; 271	Kanchad; 2-0
Thunave; VAD. थुनावे	.. N ..	354; 232; 42; 86	.. ..
Tilase; VAD. तिळसे	.. E 4-4	438; 265; 51; 104	Sonale; 1-4
Tilgaon; VAD. तिळगाव	.. S 9-0	1522; 537; 92; 254	Abitghar; 2-0
Torane; VAD. तोरणे	.. SE 10-0	352; 163; 29; 95	Abitghar; 1-0
Tuse; VAD. तुसे	.. S 5-0	2471; 801; 145; 427	Gates bk; 2-0
Umrothe; VAD. उमरोठे	.. N 3-0	674; 294; 46; 128	.. 3-0
Usar; VAD. उसर	.. S 20-0	1176; 497; 69; 266	.. ..
Vada (Urban Area XIV.); वाडा (नगरी विभाग १४)	.. HQ ..	10-98; 8,168; 1,469; 854	Local; ..
Vadapoli; VAD. वडपोली	.. NW 12-0	239; 195; 32; 105	Kanchad; 4-0
Vadavali Tarf Konapatti; VAD. वडवली तर्फ कोनपट्टी	.. E 6-0	402; 184; 25; 85	Sonale; 0-4
Vadavali Tarf Paulbare; VAD. वडवली तर्फ पौलबारे	.. S 10-0	292; 594; 107; 169	Kudus; 1-2
Vaghote; VAD. वाघोटे	.. NW 10-0	581; 183; 27; 57	Kanchad; 1-0
Varai Bk; VAD. वरई बुद्रुक	.. E ..	609; 65; 11; 42	Sonale; 0-4

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Palghar; 34-0	Vanganpada; 35-0; Mon.	.. 3-0	W.	Sl (pr); tl.
Palghar; ..	Kudus; 10-0; Fri.	Vada; 1-0	W; rv.	
Palghar; 35-0	Vanganpada; 3-0; Mon.	Dahe; 3-0	R; rv.	Sl (pr); Cs; Hanuman Fr. Ct. Sud. Pourni- ma; 4 tl.
Palghar; ..	Vada; 3-0; ..	Vada; 3-0	W.	Sl (pr); Cs.
Palghar; 31-0	Gorha; 4-0; Sun.	Posheri; 2-4	W; rv.	Sl (pr); 2 tl; ch.
.. 12-0	Local; ..	..	W.	Sl (pr); tl.
Palghar; 24-0	Gorha; 7-0; Sun.	Local; ..	W.	Sl (pr); Cs; tl; Ch.
Palghar; 19-0	Gorha; 1-0; Sun.	Gorha; 1-0	W.	Sl (pr); 2 tl.
Palghar; 37-0	.. ..	Local; 1-4	W; rv.	Sl (pr).
Palghar; 26-0	.. ..	.. ..	W; rv.	Sl (pr).
Kalyan; 25-0	Kudus; 1-0; Fri.	Kudus; 1-0		Sl (pr); pyt.
Kalyan; 35-0	Neharali; 3-0; Wed.	.. 2-0	W; rv.	Sl (pr); 2 tl; lib.
Palghar; 26-0	.. ..	Vasale; 1-0	W.	Sl (pr); 2 tl.
Palghar; 33-0	Vangan; 3-0; Mon.	.. 5-0	W; rv.	tl.
Thane; 34-0	Kudus; 10-0; Fri.	.. 4-0	W.	Sl (pr).
.. ..	.. ..	Mandava; 3-0	W.	Sl (pr); tl.
Palghar; 20-0	Gorha; 2-0; Sun.	Vaghoie; 1-0	W.	tl.
Palghar; 36-0	Vanganpada; 3-0; Mon.	.. 3-0	W; rv.	Sl (pr); Cs; tl.
.. 17-0	.. ..	.. ..	W.	Sl (pr); Cs; tl.
Kalyan; 38-3	.. ..	Vada; 2-6	W.	Sl (pr).
Palghar; 20-0	Gorha; 4-0; Sun.	Kanchad; 2-0	W.	Sl (pr); Cs; tl.
.. 12-4	.. ..	.. ..	W.	Sl (pr); Mahashivaratri and Holi Pournima Fr; 2 tl.
Thane; 27-0	Kudus; 4-0; Fri.	.. 2-0	W.	Sl (pr); Cs; tl.
.. ..	Kudus; 7-0; Fri.	.. ..	W.	
Palghar; 29-0	Neharoli; 3-0; Wed.	.. 2-4	W; rv.	Sl (pr); Cs; 2 tl.
Palghar; 27-0	Vada; 3-0; ..	Vada; 3-0	W; rv.	Sl (pr); tl.
Thane; 26-0	Kudus; .. Fri.	.. 3-0	W.	Sl (pr); mq.
Kalyan; 32-0	Local;	Local; ..	Pl.	8 Sl (6 pr, 2 h). 3 Cs; 9 tl; mq; dg; lib 5 dp; Cch.
.. ..	Gorha; 7-0; Sun.	.. ..	W.	Sl (pr); tl.
.. 14-0	.. ..	.. ..	W; t.	Sl (pr); Cs.
Kalyan; 23-0	Kudus; 1-0; Fri.	.. 0-4	W.	Sl (pr); Cs; mq.
Palghar; 20-0	Gorha; 2-0; Sun.	.. ..	W.	Sl (pr); tl.
.. 14-0	Vada; 6-0; ..	Vada; 6-0	W; t.	Sl (pr); Cs.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Varai Kh; VAD. वरई खुर्द	SE 5-0	1105; 175; 27; 88	.. ..
Varale; VAD. वरले	W 2-0	819; 616; 114; 234	Vada; 2-0
Varnol T. Konapatti; VAD. वरनोल तर्फ कोनपट्टी	SE 14-0	584; 190; 36; 117	.. 6-0
Varsale; VAD. वरसाळे	NE ..	3445; 838; 191; 534	.. ..
Vasuri Bk; VAD. वसुरी बुद्रुक	SW ..	1166; 651; 107; 192	.. ..
Vasuri Kh.; VAD. वसुरी खुर्द	SW 9-0	700; 248; 44; 112	Khupari; 1-4
Vaveghar; VAD. वावेघर	W 9-0	317; 449; 66; 169	Kanchad; 0-2
Vilkos Tarf Konapatti; VAD. विलकोस तर्फ कोनपट्टी	E 1-0	782; 256; 41; 116	Vada; 1-4
Vikos Tarf Vada; VAD. विकोस तर्फ वाडा	W 3-0	311; 102; 21; 53	Vada; 3-0
Zadkhaire; VAD. झाडखैरे	S 15-0	595; 222; 38; 129	.. ..
THANE TALUKA			
Adwali Bhutale; THN. आडवली भुताळे	SE ..	1127; 235; 49; 101	Ghansoli; 3-0
Agasan; THN. आगासन	E ..	528; 1143; 167; 89	.. ..
Airoli; THN. आयरोली	S ..	977; 2190; 453; 86	Local; ..
Belapur (Shahabaj); THN. बेलापूर (शाहाबाज)	S ..	2392; 4991; 860; 558	Local; ..
Balkum; THN. बाळकुम	N 5-0	1218; 7580; 1753; 142	Local; ..
Bale; THN. बाले	SE ..	481; 287; 62; 70	.. ..
Betavade; THN. बेंतवडे	E ..	264; 563; 87; 54	.. ..
Bhandarli; THN. भांडार्ली	SE ..	358; 403; 65; 135	Dahisar; 2-0
Bhayandar; (Urban Area III); THN. भाईंदर (नागरी विभाग ३)	NW ..	24,45; 10,598; 1,977; 500	Local; ..
Borivde; THN. बोरीवडे	N ..	548; 285; 82; 48	Local; ..
Chendani; THN. चेंदणी	S ..	Included in Urban Area I	.. ..
Chene; THN. चेणे	NW 10-0	304; 854; 179; 166	Ghod-bandar; 1-0
Chinchavli; THN. चिंचवली	S ..	371; 449; 109; 20	.. ..
Chitelsar Manpada; THN. चितळसर मानपाडा	N ..	799; 2460; 679; 84	.. ..
Darave; THN. दरावे	S ..	406; 584; 95; 84	.. ..
Datali; THN. दातीवली	E ..	722; 1180; 176; 94	Diva; 2-0
Dahisar; THN. दहीसर	SE ..	1304; 1742; 306; 652	Mumbra; 15-0
Davle; THN. दावळे	SE ..	727; 1209; 204; 456	.. ..
Dayghar; THN. डायघर	SE ..	378; 769; 178; 319	.. ..
Desai; THN. देसाई	SE ..	686; 1699; 309; 366	.. ..

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6			Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Palghar; ..	..	..	..	..	W.	Sl (pr); Cs.
Palghar; 32-0	..	..	..	..	W.	Sl (pr); tl.
.. ..	..	..	..	..	W.	Sl (pr); tl.
..
..
Thane; ..	Khanivali; 2-0; Tue.	..	..	Kudus; 2-4	W.	Sl (pr).
Palghar; 22-0	Gorha; 2-4; Sun.	..	..	Local; ..	W.	Sl (pr); tl.
Palghar; ..	..	..	..	Vada; 1-4	W.	Sl (pr).
Palghar; 26-0	..	..	..	Varale; 1-0	W.	tl.
.. ..	..	..	..	..	W.	Sl (pr); tl.
Thane; 8-0	Thane; 8-0;	..	..	..	Pl.	Sl (pr).
..
Thane; 3-0	..	..	..	Local; ..	Pl.	Sl (pr); Cs; 2 tl.
.. ..	..	..	..	..	..	3 Sl (pr, h); dh.
Thane; 5-0	Thane; 5-0;	..	..	Local; ..	Pl.	2 Sl (pr); 9 tl; 4 gym;
.. ..	..	..	..	..	..	lib; 8 dp.
..
..
Mumbra; 12-0	..	..	..	Stage; ..	W.	Sl (pr); 2 tl.
Local; ..	Local; .. Sun.	..	..	Local; ..	Pl.	5 Sl (pr, 2 m, 2 h); 2 Cs;
.. ..	..	..	..	..	..	Gaovdevi Fr; Datta-
.. ..	..	..	..	..	..	Jayanti Fr; mq; dg;
.. ..	..	..	..	..	..	22 dp; Cch.
Local; ..	Local; .. Daily	..	..	..	..	8 Sl (7 pr, m); 5 tl; mq;
.. ..	..	..	..	..	..	3dg; 2 lib; dp.
..
Borivali; 8-0	Ghodbandar; 1-0;	..	..	..	W; n.	2 Sl (pr); Hanuman
.. ..	..	..	..	..	..	Jayanti Ct. Sud. 15; tl.
..
..
..
Diva; 2-0	..	..	..	..	..	....
Local; ..	Mum-bra; 15-0;	..	..	..	W.	Sl (pr); 10 tl.
..
..
..

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Dighe; THN. दिघे	.. S ..	996; 772; 342; 4	.. ..
Diva; THN. दिवा	.. E ..	1274; 2259; 511; 131	Local; ..
Dive; THN. दिवे	.. S ..	992; 1410; 244; 92	.. ..
Dongari; THN. डोंगरी	.. NW ..	1724; 3771; 579; 569	.. ..
Gothivali; THN. गोटीवली	.. S ..	347; 1664; 292; 102	.. ..
Ghansoli; THN. घणसोला	.. S ..	1556; 4273; 923; 300	.. ..
Ghodbunder; THN. घोडबंदर	.. NW ..	1031; 1728; 343; 309	Local; ..
Goteghar; THN. गोटेघर	.. SE ..	777; 2; 1; 2	.. ..
Ilthan; THN. इलठाण	.. S ..	531; 119; 33; 15	.. ..
Ju; THN. जु	.. S ..	701; 720; 115; 128	Turbhe; 2-0
Kalwa; Urban Area II; THN. कळवा; नागरी विभाग २	.. E ..	6.71; 14,551; 3,114; 294	Local; ..
Karave; THN. करावे	.. S ..	1690; 2240; 294; 318	.. ..
Kavesar; THN. कावेसर	.. N 6-0	870; 2098; 452; 269	.. 2-0
Kashi; THN. काशी	.. NW 18-0	1260; 1346; 303; 155	Mira; 0-4
Khairane; THN. खैरणे	.. S ..	825; 2821; 556; 226	Ghansoli; 2-0
Khari; THN. खारी	.. E 2-0	711; 1162; 159; 125	Kalwa; 1-0
Khidkali; THN. खिडकाळी	.. SE ..	439; 628; 147; 131	.. ..
Kolshet; THN. कोळशेट	.. N ..	1509; 4909; 1192; 231	.. ..
Kopari; THN. कोपरी	.. S ..	Included in Urban Area I	.. ..
Koparkhairane; THN. कोपरखैरणे	.. S ..	2157; 2457; 487; 377	Ghansoli; 2-0
Kouse; THN. कौसे	.. SE ..	1033; 2002; 408; 259	.. ..
Kukshet; THN. कुकशेट	.. S ..	600; 609; 125; 139	.. ..
Mahape; THN. महापे	.. S ..	1046; 787; 211; 28	Ghansoli; 2-0
Majivade; Urban Area IV; THN. माजीवडे; नागरी विभाग ४	.. N ..	8.55; 22,126; 5,567; 186	.. ..
Mhatardi; THN. म्हातार्डी	.. E ..	255; 254; 43; 9	.. ..
Mira; THN. मिरा	.. NW 16-0	1727; 2223; 297; 351	Dahisar; 2-0
Mumbra; THN. मुंब्रा	.. E ..	861; 8200; 1882; 59	Local; ..

Railway Station; Distance	Weekly Bazar; Distance; Bazar Day	Motor Stand; Distance	Drinking Water facilities	Institutions and other information
5	6	7	8	9
Local; ..	.. ..	.. ..	.. ..	SI (pr); 3 tl; 2 dp.
Local; ..	.. ..	Mumbra; 3-0	W.	SI (pr); 3 tl; 2 dp.
..
..
..
Dahisar; 4-0	Borivali; ..	.. ..	W.	SI (pr); Fr. Vsk. 15; 3 tl; 4 dp.
..
..
Man- khurd; 15-0	Turbhe; 2-0; ..	.. ..	Pl.	SI (pr); Fr. Ct. Sud. 9; tl.
Local; ..	Local; .. Daily	.. ..	Pl.	7 SI (pr, m); 3 Cs; Gavdevi, Maha- shivraatri Fr; Ramjan; Bakri 1d; 5 tl; 2 mq; dg; 2 lib; 15 dp.
..
Thane; 6-0	Thane; 6-0; ..	Stage; ..	W.	SI (pr); 4 tl; Fr. Vsk. 3.
Dahisar; 3-0	Bhayandar; 3-0; ..	Stage; ..	Pl.	SI (pr); Cs; mq; dg; 2 dp.
Thane; 8-0	Thane; 8-0; ..	Thane; 8-0	Pl.	SI (pr); Cs; 4 tl; gym; lib; 2 dp.
.. 0-5	.. ..	.. 1-0	Pl.	SI (pr); Fr. Vsk. 15; 2 tl; gym; ch; 3 dp.
..
..
..
Thane; 8-0	.. ..	Local; ..	Pl.	SI (pr); Cs; 4 tl; gym; lib; 2 dp.
..
..
Thane; 7-5	Thane; 7-5 ..	.. ..	.. ..	SI (pr).
.. 0-8	.. ..	.. ..	.. ..	5 SI (pr, 3 m); 2 Cch.
..
Bhayndar; ..	.. ..	.. 0-2	W; Pl.	SI (pr); Fr. Ct. Sud. 15; Magh Vad. 14; 5 tl; m; dp; Cch.
Local; ..	Local; ..	Local; ..	W; Pl.	SI (pr); Mahashivratra Fr; 9 tl; mq; dg; ch; 25 dp.

Village name in English; Taluka abbreviation; Village name in Marathi 1	Direction; Travelling distance 2	Area (acres); Population; Households; Agricultural population 3	Post Office; Distance 4
Nagaon; THN. नागाव ..	SE ..	597; 827; 137; 206	Dahisar; 2-0
Narivali; THN. नारीवली ..	SE ..	712; 475; 84; 120	.. ..
Naupada; THN. नौपाडा ..	W ..	Included in Urban Area 1	.. ..
Navali; THN. नावाळी ..	SE ..	223; 206; 36; 98	.. ..
Nerul; THN. नेरुळ ..	S ..	753; 1484; 246; 413	.. 2-0
Nighu; THN. निघू ..	SE ..	187; 128; 35; 29	.. ..
Ovale; THN. ओवले ..	N ..	3350; 2022; 457; 323	Local; ..
Padale; THN. पाडले ..	SE ..	213; 703; 143; 111	.. ..
Panchpakhadi; THN. पांचपाखाडी ..	W ..	Included in Urban Area I	.. ..
Parsik; THN. पारसिक ..	E ..	526; 966; 304; 5	Kalwa; 1-0
Pavane; THN. पावणे ..	S ..	753; 606; 176; 66	.. ..
Rabale; THN. राबाले ..	S ..	932; 923; 207; 93	Ghansoli; 2-0
Rai-Murdhe; THN. राई मुरघे ..	NW 18-0	2485; 4458; 844; 518	Raigaon;
Sabe; THN. साबे ..	SE ..	255; 673; 126; 62	.. ..
Sagarli; THN. सागरली ..	SE ..	123; 131; 35; 12	.. ..
Sanpada; THN. सानपाडा ..	S ..	121; 1312; 203; 121	Turbhe; 2-1
Sarsole; THN. सरसोळे ..	S ..	357; 723; 120; 121	.. ..
Savoli; THN. सावोली ..	S ..	356; 59; 24; ..	.. ..
Shil; THN. शिळ ..	SE ..	1204; 535; 95; 150	.. ..
Shiravane; THN. शिरवणे ..	S ..	1196; 2162; 425; 575	Local; ..
Talvali; THN. तळवली ..	S ..	293; 1380; 328; 26	.. ..
Thane Urban area I ठाणे नागरी विभाग १	HQ ..	26.16; 1,70,675; 36,130; 204	.. ..
Turbhe; THN. तुर्म ..	S ..	1905; 3817; 875; 569;	Local; ..
Uttan; THN. उत्तन ..	NW ..	3862; 6435; 1029; 448	.. ..
Uttarshiv; THN. उत्तरशिव ..	SE ..	386; 548; 83; 113	.. ..
Vashi; THN. वाशी ..	S ..	655; 1511; 297; 245	Vashi- 0-6 nagar;
Vadavali; THN. वडवली ..	N ..	841; 2470; 483; 602	Local; ..
Vaklan; THN. वाकळण ..	SE ..	955; 1286; 205; 328	.. ..
Varsave; THN. वरसावे ..	NW ..	179; 456; 109; 23	.. ..
Yeur; THN. येऊर ..	W 4-0	3631; 778; 735; 288	.. 2-0

Railway Station; Distance 5	Weekly Bazar; Distance; Bazar Day 6			Motor Stand; Distance 7	Drinking Water facilities 8	Institutions and other information 9
Mumbra; 15-0	..	..	..	2-0	W; pl.	Sl (pr); 4 tl; gym; dp.
..
..
..
Mankhurd; 14-0	Belapur Rd.;	13-0;	..	..	..	Sl (pr); 2 tl.
..
Bhayandar; ..	..	11-0; Sun.	..	..	W.	Sl(pr); 7tl; m; dp; Cch.
..
..
Kalwa; 1-0	Thane;	4-0;	..	Kalwa; 2-0	W.	Mahashivratra Fr. Mg. 14; tl; lib.
..
Thane; 7½	Thane;	7;	..	..	Pl.	Sl (pr); 2 tl; gym; ch; 3 dp; Cch.
Bhayandar; 2-0	Bhayandar;	1-0; Sun.	..	Stage;	Pl.	Sl(pr); Ramnavami Fr. Ct. Sud. 9; Hanuman Jayanti Fr. Ct. Sud. 15; lib; 4 dp.
..
..
Mankhurd; 10-0	Turbhe;	2-0; Sun.	..	..	Pl.	Sl (pr); Datta jayanti, Gavdevi Fr; 4 tl; 2 dp.
..
..
..
Mankhurd; 12-0	Turbhe;	0-3;	..	Local;	Pl.	Sl (pr); 2 Cs; tl.
..
Thane;	Daily;	..	..	..	Pl.	Sl (pr, h, clg); tl; dp; lib; Cch.
Thane; 21-0	Thane;	21-0;	..	Local;	Pl.	Sl (pr, m); Cs; Fr. Ct. Sud. 5; tl; 3 dp.
..
..
Mankhurd; 6-0	Turbhe;	2-0;	..	Turbhe; 2-0	Pl.	Sl (pr); Ramnavmi Fr. Ct. Sud. 9; 3 tl; 2 dp.
Bhayandar; ..	..	11-0; Sun.	..	Local;	W.	2 Sl (pr); Cs; Fr. Ct. Sud. 15; 4 tl; mq; dg.
..
..
Thane;	..	..	..	2-0	W.	Sl (pr); Fr. Vsk. 5; 2 tl.



वन्ध्यायैव नमः

APPENDIX

TABLE No. 1—MAXIMUM AND MINIMUM MONTHLY TEMPERATURE AT DAHANU CENTRE IN THANE DISTRICT, 1978

(Degrees in Centigrade)

Months	Maximum	Minimum
January	26.9	16.1
February	28.0	18.8
March	28.7	19.4
April	32.2	24.3
May	35.2	27.2
June	32.3	26.2
July	30.7	26.0
August	30.2	25.7
September	30.5	24.7
October	32.7	23.2
November	31.9	22.0
December	30.8	19.0

TABLE No. 2—NUMBER OF RAINY DAYS AND TOTAL RAINFALL AT SELECTED CENTRES IN THANE DISTRICT, 1978

(Rainfall in mm.)

Centre	Normal rainfall	No. of rainy days	Rainfall
(1) Thane	2,444	72	1,820
(2) Vasai	2,325	N.A.	N.A.
(3) Palghar	2,237	N.A.	N.A.
(4) Dahanu	1,684	54	1,049
(5) Talasari	2,308	67	1,759
(6) Jawhar	3,688	N.A.	N.A.
(7) Mokhada	2,650	83	1,928
(8) Wada	3,073	78	2,005
(9) Bhiwandi	2,110	82	1,993
(10) Shahapur	2,241	88	2,102
(11) Murbad	2,208	79	2,036
(12) Kalyan	2,496	87	1,976
(13) Ulhasnagar	3,070	80	2,295

TABLE No. 3—STATISTICS OF LAND UTILIZATION (TALUKA-WISE), 1977-78 IN THANE DISTRICT

(Figures in '00 hectares)

Taluka	Total geographical area	Forests and culturable land	Barren and unculturable land	Land put to non-agricultural uses	Culturable waste	Permanent pasture and other grazing lands	Land under miscellaneous tree crops and groves not included in area sown	Current fallows	Other fallows	Net sown area	Area sown more than once	Total cropped area
Thane	342	55	43	108	5	35	21	....	....	77	1	78
Kalyan	312	70	29	66	1	72	....	....	6	69	1	70
Murbad	907	228	71	24	86	269	....	21	14	195	6	201
Bhivandi	690	244	79	120	19	19	....	....	....	209	5	214
Vasai	539	224	26	51	5	43	....	6	8	183	4	187
Wada	788	378	78	5	53	....	43	19	6	208	1	209
Dahanu	978	458	44	28	6	86	....	21	51	253	3	356
Shahapur	1,572	774	163	26	40	292	....	2	11	264	3	267
Palghar	1,068	455	92	30	36	24	....	8	3	419	3	422
Jawhar	856	375	20	3	109	24	....	48	13	264	1	265
Mokhada	680	239	97	96	20	....	....	20	24	184	....	184
Talasari ..	267	79	26	13	1	....	....	....	....	149	1	150
Ulhasnagar	336	98	50	73	16	13	....	17	1	75	1	76
District Total	9,337	3,677	818	643	397	877	64	164	148	2,549	31	2,580

TABLE NO. 4—AREA UNDER RESERVED, PROTECTED AND UNCLASSIFIED FORESTS, 1978-79

(In sq. km.)

Department	Reserved	Protected	Unclassified	Total
(1)	(2)	(3)	(4)	(5)
Revenue	....	....	....	....
Forest	3,143.59	978.56	0.29	4,122.44

TABLE NO. 5—AREA UNDER FOREST LAND AND NOT AVAILABLE FOR CULTIVATION IN THANE DISTRICT, 1977-78

(Area in '00' hectares)

Total geographical area	Forest land	Area not available for cultivation
(1)	(2)	(3)
9,337	3,677	1,461

TABLE NO. 6—OUTTURN OF MAJOR AND MINOR FOREST PRODUCTS IN 1977-78

Products	Quantity (in '000' M ³)		Value in Rs.
(1)	(2)	(3)	
<i>Major :</i>			
Timber	30,203	1,90,58,000
Fuel	15,25,26	96,24,000
Sandal wood
<i>Minor :</i>			
Bamboo	18,195
Grass and grazing	2,18,785
Tendu	2,950
Gum	26,959
Other Products	6,33,956

TABLE NO. 7—AREA UNDER DIFFERENT CROPS IN

Serial No.	Tahsil			Rice	Wheat
(1)	(2)			(3)	(4)
1	Thane	..	..	7,582	....
2	Vasai	..	..	15,697	....
3	Palghar	..	..	18,854	125
4	Dahanu	..	..	15,539	24
5	Talasari	..	..	5,646	....
6	Jawhar	..	..	8,264	10
7	Mokhada	..	..	2,852	....
8	Wada	..	..	12,553	....
9	Bhiwandi	..	..	18,272	....
10	Shahapur	..	..	14,534	2
11	Murbad	..	..	14,120	....
12	Kalyan	..	..	6,641	....
13	Ulhasnagar	..	..	6,252	....
District Total		..	..	1,46,806	161

TABLE No.

Serial No.	Tahsil			Gram	Tur	Other pulses
(1)	(2)			(11)	(12)	(13)
1	Thane	..	..	26	2	62
2	Vasai	..	..	140	101	201
3	Palghar	..	..	92	97	937
4	Dahanu	..	..	36	492	437
5	Talasari	..	..	38	339	324
6	Jawhar	..	..	53	1,078	1,566
7	Mokhada	..	..	7	836	1,495
8	Wada	..	..	87	57	183
9	Bhiwandi	..	..	237	217	396
10	Shahapur	..	..	150	80	745
11	Murbad	..	..	320	368	1,348
12	Kalyan	..	..	39	12	38
13	Ulhasnagar	..	..	41	16	93
District Total		..	..	1,266	3,695	7,825

EACH TAHSIL OF THANE DISTRICT IN 1977-78

(Area in Hectares)

Jowar (5)	Bajra (6)	Ragi (7)	Vari (8)	Other cereals (9)	Total cereals (10)
....	11	4	....	7,597
....	48	22	....	15,767
3	145	43	2,117	21,287
....	1,230	650	....	17,443
....	436	212	132	6,426
113	6,585	4,508	21	19,500
....	5,998	4,802	....	13,652
....	556	266	....	13,375
....	711	186	....	19,169
....	3,198	728	32	18,494
....	797	314	40	15,271
....	90	60	....	6,791
....	160	94	54	6,560
116	19,965	11,889	2,396	1,81,332

7—contd.

Total pulses (14)	Total foodgrains (15)	Sugar- cane (16)	Condiments and spices (17)	Banana (18)	Other fruit and vegetables (19)	Total fruit and vegetables (20)
90	7,687	....	54	....	103	103
442	16,209	....	107	990	381	1,371
1,126	22,413	12	140	242	205	447
965	18,408	....	62	106	1,261	1,367
701	7,127	....	7	4	159	163
2,697	22,198	....	19	....	66	66
2,338	15,990	....	15	....	83	83
327	13,702	....	26	....	9	9
850	20,019	....	147	....	381	381
975	19,469	23	65	....	125	125
2,036	17,307	....	310	....	1,036	1,036
89	6,880	....	18	....	63	63
150	6,710	....	23	....	139	139
12,786	1,94,119	35	993	1,342	4,011	5,353

TABLE No.

Serial No.	Tahsil	Miscellaneous crops	Total food crops
(1)	(2)	(21)	(22)
1	Thane .. ..	..	7,844
2	Vasai .. ..	..	17,687
3	Palghar .. ..	..	23,012
4	Dahanu .. ..	..	19,837
5	Talasari .. ..	..	7,297
6	Jawhar .. ..	..	22,283
7	Mokhada .. ..	..	16,088
8	Wada .. ..	..	13,737
9	Bhiwandi .. ..	..	20,547
10	Shahapur .. ..	..	19,682
11	Murbad .. ..	..	18,653
12	Kalyan .. ..	..	6,961
13	Ulhasnagar .. ..	..	6,872
	District Total .. ..	..	2,00,500

TABLE No.

Serial No.	Tahsil	Tobacco	Other Drugs and Narcotics	Total Drugs and Narcotics
(1)	(2)	(29)	(30)	(31)
1	Thane .. ..	..	..	..
2	Vasai .. ..	..	602	602
3	Palghar .. ..	..	..	..
4	Dahanu .. ..	..	..	..
5	Talasari .. ..	..	..	..
6	Jawhar .. ..	..	..	..
7	Mokhada .. ..	..	..	..
8	Wada .. ..	..	..	..
9	Bhiwandi .. ..	..	..	..
10	Shahapur .. ..	..	..	..
11	Murbad .. ..	..	..	..
12	Kalyan .. ..	..	..	..
13	Ulhasnagar .. ..	..	..	..
	District Total .. ..	..	602	602

7—contd.

(Area in Hectares)

Cotton (23)	Other fibres (24)	Total fibres (25)	Groundnut (26)	Oil Other seeds (27)	Total oil-seeds (28)
....
....	....	....	....	52	52
....	9	9	....	79	79
....	....	....	....	88	88
....	85	85	....	15	15
....	32	32	38	1,154	1,192
....	35	35	48	2,119	2,167
....	10	10	....	52	52
....	85	85	....	246	246
....	50	50	40	145	185
....	310	310	21	451	572
....	9	9	....	21	21
....	15	15	1	24	25
....	640	640	148	4,446	4,694

7—contd.

Misc. Non-food crops (32)	Total Non- food crops (33)	Total gross area (34)	Area cropped more than once (35)	Total net area sown (36)
....	....	7,844	84	7,760
360	1,014	18,701	441	18,260
19,019	19,107	42,119	257	42,862
5,700	5,788	25,625	352	25,273
7,558	7,658	14,955	76	14,879
3,019	4,243	26,526	129	26,397
85	2,287	18,375	7	18,368
7,198	7,260	20,997	122	20,875
590	921	21,468	470	20,998
6,788	7,023	26,705	350	26,355
540	1,422	20,075	569	19,506
....	30	6,991	85	6,906
727	767	7,639	143	7,496
51,584	57,520	2,58,020	3,085	2,55,935

Source : Season and Crops Report.

TABLE No. 8—YIELD PER HECTARE AND OUTTURN OF PRINCIPAL CROPS IN THANE DISTRICT IN 1977-78

Crops (1)	Yield per ect. in kg. (2)	Outturn in "00" M. tonnes (3)
Rice	2,193	3,259
Wheat	1,000	4
Jowar	1,400	7
Maize	2,000	2
Ragi	858	169
Other cereals	598	73
Total cereals	1,936	3,514
Gram	263	5
Tur	289	11
Udid	351	20
Mung .. .. .	....	....
Other pulses	272	9
Total pulses	306	45
Sesamum	333	3
Coconut .. .. .	....	....
Sugarcane (Prod. in Gur)	11,000	11
Sannhemp .. .. .	....	..
Ambadi .. .. .	....	....
Tobacco	1,500	6
Chillies	625	5
Turmeric	917	11

Note.—The outturn in respect of crops viz. bajra, barley, masur, linseed, rape and mustard, castor-seed, drugs and narcotics, cotton, dry ginger, potato is nil.

TABLE No. 9—AREA IRRIGATED BY DIFFERENT SOURCES IN EACH TAHSIL OF THANE DISTRICT
IN 1977-78

Tahsil	Area irrigated by sources						Total gross area irrigated
	Govt. canals	Private canals	Tanks	Wells	Other sources	Total net area irrigated	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Thane	180	....	180	180
Vasai	1,083	521	1,604	1,804
Palghar	547	605	1,152	1,452
Dahanu	1,385	254	1,639	1,839
Talasari	168	....	168	168
Jawhar	90	..	..	10	167	267	267
Mokhada	5	5	8
Wada	14	158	172	172
Bhiwandi	310	310	310
Shahapur	105	208	313	333
Murbad	36	495	531	531
Kalyan	48	....	48	63
Ulhasnagar	53	78	131	131
District Total	90	..	..	3,629	2,801	6,520	7,258

(Area in Hectares,

TABLE NO. 10—AREA IRRIGATED UNDER DIFFERENT CROPS

Serial No.	Tahsil		Rice	Wheat	Other cereals
(1)	(2)		(3)	(4)	(5)
1	Thane	..	....	....	....
2	Vasai	..	....	....	....
3	Palghar	..	30	8	....
4	Dahanu	..	....	26	10
5	Talasari	..	....	....	....
6	Jawhar	..	....	10	....
7	Mokhada	..	....	....	....
8	Wada	..	....	....	....
9	Bhiwandi	..	....	....	....
10	Shahapur	..	283	2	....
11	Murbad	..	....	....	....
12	Kalyan	..	....	....	....
13	Ulhasnagar	..	53	....	....
	District Total	..	366	46	10

TABLE

Serial No.	Tahsil		Chillies	Turmeric	Onion	Banana
(1)	(2)		(12)	(13)	(14)	(15)
1	Thane	..	....	....	23	....
2	Vasai	..	....	....	95	990
3	Palghar	..	150	8	170	500
4	Dahanu	..	....	....	50	106
5	Talasari	..	15	....	5	....
6	Jawhar	..	....	....	....	....
7	Mokhada	..	....	....	....	....
8	Wada	..	....	....	....	....
9	Bhiwandi	..	....	....	12	....
10	Shahapur	..	....	....	....	....
11	Murbad	..	....	....	....	....
12	Kalyan	..	....	....	....	....
13	Ulhasnagar	..	....	....	....	....
	District Total	..	165	8	355	1,596

IN EACH TAHSIL OF THANE DISTRICT IN 1977-78

(Area in hectares)

Total Cereals	Gram	Total pulses	Total foodgrains	Sugarcane	Condiment and spices
(6)	(7)	(8)	(9)	(10)	(11)
...	54
...	107
38	38	12	15
36	36	36	72	...	10
...	7
10	10	...	19
...
...	...	138	138	...	26
...
285	285	23	...
...
...
53	53	...	...
422	36	174	596	35	238

No. 10—*contd.*

(Area in hectares)

Other fruit and vegetables	Total food crops	coconut	Total oil-seeds	Other miscellaneous non-food crops	Total non-food crops	Total area irrigated
(16)	(17)	(18)	(19)	(20)	(21)	(22)
103	180	...	...	...	...	180
381	1,573	52	52	179	231	1,804
440	1,337	55	55	60	115	1,452
1,601	1,839	...	...	...	...	1,839
141	168	...	...	...	...	168
238	267	...	...	...	...	267
8	8	...	...	...	...	8
8	172	...	...	...	...	172
298	310	...	...	...	...	310
25	333	...	...	...	...	333
531	531	...	...	...	...	531
63	63	...	...	...	...	63
78	131	...	...	...	...	131
3,915	6,912	107	107	239	346	7,258

TABLE No. 11—MONEY-LENDERS AND LOANS ADVANCED BY THEM IN THANE DISTRICT DURING 1977-78 & 1978-79

(Rs. in '000)

Serial No.	Tahsil	Year	No. of money-lenders	Loans advanced to traders	Loans advanced to non-traders	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	District Total	.. 1977-78	222	2,44	8,06	10,50
		1978-79	224	2,31	9,46	11,77
	<i>Tahsil</i>					
1	Thane	.. 1977-78	104	....	38	38
		1978-79	103	....	35	35
2	Vasai	.. 1977-78	7	60	80	1,40
		1978-79	5	50	90	1,40
3	Palghar	.. 1977-78	....	....	....	....
		1978-79	....	....	....	....
4	Dahanu	.. 1977-78	....	....	....	....
		1978-79	....	....	....	....
5	Talasari	.. 1977-78	....	....	....	....
		1978-79	....	....	....	....
6	Jawhar	.. 1977-78	....	....	....	....
		1978-79	....	....	....	....
7	Mokhada	.. 1977-78	3	....	6	6
		1978-79	3	....	....	....
8	Wada	.. 1977-78	1	20	40	60
		1978-79	1	30	50	80
9	Bhiwandi	.. 1977-78	16	1,24	5,25	6,49
		1978-79	16	1,45	5,00	6,45
10	Shahapur	.. 1977-78	2	40	32	72
		1978-79	2	6	25	31
11	Murbad	.. 1977-78	1	....	3	3
		1978-79	1	....	2	2
12	Kalyan	.. 1977-78	66	....	70	70
		1978-79	68	....	2,20	2,20
13	Ulhasnagar	.. 1977-78	17	....	5	5
		1978-79	21	....	24	24

Source : District Deputy Registrar of Co-operative Societies, Thane.

TABLE NO. 12—NUMBER OF DIFFERENT TYPES OF CO-OPERATIVE SOCIETIES WORKING IN THANE DISTRICT AT THE END OF 30TH JUNE 1978 AND 30TH JUNE 1979

Serial No.	Description	1977-78 (as on 30th June 1978)	1978-79 (as on 30th June 1979)
(1)	(2)	(3)	(4)
1	Total credit societies	774	772
2	Total non-credit societies	1,395	1,458
I. Agricultural Credit Societies—			
	(i) District central co-operative banks ..	1	1
	(ii) District land development banks ..	....	....
	(iii) Primary agricultural credit societies ..	424	398
	(iv) Others—		
	(a) Agricultural credit societies ..	....	....
	(b) Grain banks ..	106	104
II. Non-agricultural Credit Societies—			
	(i) Industrial co-operative bank ..	....	....
	(ii) Urban banks and urban credit societies ..	26	27
	(iii) Salary earners societies ..	47	51
	(iv) Factory workers societies ..	158	179
	(v) Thrift and credit societies ..	....	....
	(vi) Bhis ..	....	....
	(vii) Other non-agricultural credit societies ..	12	12
III. Agricultural Non-Credit Societies—			
	(i) Agricultural Marketing ..	8	7
	(ii) Agricultural production and processing ..	18	18
	(iii) Fisheries ..	34	34
	(iv) Animal husbandry societies ..	75	75
	(v) Irrigation societies ..	46	46
	(vi) Farming societies ..	29	29
	(vii) Agricultural processing—		
	(a) Poultry ..	9	6
	(b) Crop protection ..	....	....
	(c) Milk societies ..	59	62
	(d) Piggery societies ..	1	1
	(viii) Others ..	Nil	....

TABLE No. 12.—*contd.*

Serial No	Description	1977-78 (as on 30th une 1978)	1978-79 (as on 30th June 1979)
(1)	(2)	(3)	(4)
IV. Non-agricultural Non-credit Societies—			
(i)	Handloom and powerloom weavers societies	6	7
(ii)	Spinning mills	2	2
(iii)	Other industrial societies	89	99
(iv)	Consumer stores	101	105
(v)	Housing societies	727	779
(vi)	Supervision societies	1	1
V. Others—			
(a)	Industrial estates	6	6
(b)	Forest	81	80
(c)	Transport	4	3
(d)	Printing Presses	3	3
(e)	Publicity .. .. .	....	....
(f)	Hospital .. .. .	....	....
(g)	Labour contract	90	96
(h)	District and divisional co-operative board	1	1
(i)	Federations	5	5
Total number of co-operative societies ..		2,169	2,230

Source: District Deputy Registrar of Co-operative Societies, Thane.

TABLE No. 13—OPERATION OF REGULATED MARKETS IN EACH TAHSIL IN THANE DISTRICT
DURING 1977-78 AND 1978-79

Serial No.	Name of market Committee	Tahsil	Nature of market	Year	Annual arrival			
					Paddy		Rice	
					Quantity in tonnes	Value in '000 Rs.	Quantity in tonnes	Value in '000 Rs.
1	Agricultural Produce Market Committee, Shahapur. Shahapur.	..	Purchase and sale ..	1977-78 .. 1978-79 ..	35 34	52 52	....	....
2	A. P. M. C., Murbad	..	Do.	1977-78 .. 1978-79 ..	3 70	5 81	....	....
3	A. P. M. C., Bhiwandi	..	Do.	1977-78 .. 1978-79 ..	.. ..	.. ..	5 3	5 4
4	A. P. M. C., Palghar	..	Do.	1977-78 .. 1978-79 ..	.. 15	.. 16	....	....
5	A. P. M. C., Vasai	..	Do.	1977-78 .. 1978-79 ..	....	....	....	....
6	A. P. M. C., Kalyan	..	Do.	1977-78 .. 1978-79 ..	.. ..	Not functioning..	....	....
				1977-78 .. 1978-79 ..	38 119	57 149	5 3	5 4

Source : District Deputy Registrar of Co-operative Societies, Thane.

TABLE No. 14—ROAD LENGTH ACCORDING TO CATEGORY AND SURFACE CLASSIFICATION IN THANE DISTRICT
AS ON 31ST MARCH 1978 AND AS ON 31ST MARCH 1979

Serial No.	Category	Extra Municipal									
		Buildings and Communications Department				Zilla Parishad				Grand Total	
		As on 31st March 1978	As on 31st March 1979	As on 31st March 1978	As on 31st March 1979	As on 31st March 1978	As on 31st March 1979	As on 31st March 1978	As on 31st March 1979	As on 31st March 1978	As on 31st March 1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
I. Category											
1	National Highways ..	234.00	229.80	.....	.....	234.00	229.80	.....	.....
2	State Highways ..	465.16	484.59	22.82	22.82	487.98	507.41	.....	.....
3	Major District Roads	293.92	292.51	389.02	390.02	682.94	682.53	.....	.....
4	Other District Roads	8.57	0.20	834.11	839.88	842.08	840.08	.....	.....
5	Village Roads	.....	.....	988.28	999.48	988.28	999.48	.....	.....
6	Others ..	273.77	351.57	690.11	782.91	963.88	1134.48	.....	.....
Total ..		1 275.42	1 358.67	2 924.34	3 035.11	4 199.16	4 393.78	...	...
II. Surface Classification											
1	Cement concrete ..	28.50	13.50	5.43	5.43	33.93	18.93	20.33	20.33		
2	Black-topped ..	811.08	915.55	256.80	306.40	1,067.88	1,221.95	347.56	347.56		
3	Water Bound Macadam	338.07	143.05	1,795.50	1,916.82	2,133.57	2,059.87	138.66	138.66		
4	Granular material ..	.....	.....	.....	.....	.....	.....	98.41	98.41		
5	Lower type ..	97.77	286.57	866.61	806.46	964.38	1,093.03	8.00	8.00		
Total ..		1,275.42	1,358.67	2,924.34	3,035.11	4,199.76	4,393.78	612.96	612.96		

Source : Superintending Engineer, Konkan Public Works Circle, Thane, and Municipal Councils in Thane District.

TABLE No. 15—MOTOR VEHICLES IN THANE DISTRICT AS ON
31ST MARCH 1980

Items						Number
(1)						(2)
Motor cycles, scooters etc.						9,660
Motor cars						6,640
Taxi cabs						354
Auto rikshaws						3,580
Stage carriages—						
(1) Diesel						540
(2) Petrol						....
Lorries—						
Private carriages—						
(1) Diesel						896
(2) Petrol						592
Public carriages						
(1) Diesel						5,010
(2) Petrol						1,494
Ambulances						58
School buses						14
Private service vehicles						381
Trailors						716
Others						798
Total						30,733

Source : Regional Transport Officer, Thane.

TABLE No. 16—MOTOR VEHICLES IN OPERATION IN THANE REGION
AS ON 31ST MARCH 1978 AND 31ST MARCH 1979

Serial No.	Item	Number	
		As on 31st March 1978	As on 31st March 1979
(1)	(2)	(3)	(4)
1	Motor cycles, scooters, etc.	8,265	10,871
2	Motor cars	6,762	8,063
3	Taxi cars	380	401
4	Auto rickshaws	3,319	3,986
5	Stage carriages—		
	(1) Diesel	362	362
	(2) Petrol	....	....
6	Lorries—		
	(a) Private carriages—		
	(i) Diesel	1,088	1,179
	(ii) Petrol	689	653
	(b) Public carriages—		
	(i) Diesel	5,643	6,382
	(ii) Petrol	1,504	1,456
7	Ambulances	66	66
8	School buses	17	19
9	Private service vehicles	362	390
10	Trailors	504	537
11	Tractors	501	540
12	Others	396	452
Total		29,858	35,357

Source : Regional Transport Officer, Thane.

TABLE No. 17—OPERATIONS OF MAHARASHTRA STATE ROAD
TRANSPORT CORPORATION DURING THE YEARS 1977-78 AND
1978-79 IN THANE DISTRICT

Serial No.	Items	As on 31st March 1978	As on 31st March 1979
1	No. of routes at the end of the year ..	497	515
2	Route distance (km.) ..	17,813	18,126
3	Average route distance (km.) ..	35.84	35.20
4	Average per day effective (km.) operated ..	86,240	99,250
5	Average No. of buses held during the year ..	250.10	271.84
6	Average No. of buses on road per day ..	474	525
7	Average vehicle utilisation (km.) ..	372.3	377.4
8	Percentage load factor ..	64.5	69.3
9	No. of passengers travelled per day ..	2,78,265	2,98,690
10	Average distance travelled per passenger (km.) ..	10.32	11.17
11	Total traffic receipts during year (Rs. in '000) ..	7,19,22	8,61,21
12	Average earning per passenger (in paise) ..	70.8	79.0

Source : Divisional Controller, State Transport, Thane.

TABLE No. 18—STATISTICS OF POSTS AND TELEGRAPHS AND TELE-
PHONES IN THANE DISTRICT DURING 1961-62, 1965-66, 1970-71,
1973-74, 1974-75, 1975-76, 1976-77, 1977-78 AND 1978-79

Serial No.	Year	No. of post offices	No. of telegraph offices	No. of letter boxes	No. of postmen	No. of telephones	No. of radio licences issued and renewed together
1	1961-62	188	26	300	124	701	12,618
2	1965-66	252	42	690	275	2,441	59,639
3	1970-71	252	57	642	265	5,750	97,633
4	1973-74	256	58	743	337	9,883	1,08,899
5	1974-75	258	58	746	345	10,712	1,47,271
6	1975-76	263	61	775	339	13,869	1,39,191
7	1976-77	271	61	814	355	15,790	1,62,734
8	1977-78	298	67	1,071	380	34,122	1,64,062
9	1978-79	326	69	1,335	412	36,259	1,97,606

Source : Superintendent of Posts and Telegraphs, Thane.

TABLE No. 19—PLAN EXPENDITURE UNDER DIFFERENT DEVELOPMENT HEADS, SUB-HEADS, IN
THANE DISTRICT DURING 1976-77, 1977-78 AND 1978-79

Serial No.	Development Head/Sub-head	1976-77			1977-78			1978-79		
		State Sector	Local Sector	Total	State Sector	Local Sector	Total	State Sector	Local Sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A I. Agricultural Programme—										
1	Agricultural production	..	2,34	13,18	14,62	29	14,91	25,18	26	25,44
2	Minor Irrigation	..	36,38	23,80	41,94	19,91	61,85	71,48	16,70	88,18
3	Soil Conservation	..	13,70	13,70	12,32	..	12,32	12,53	..	12,53
4	Animal Husbandry	..	..	1,23	..	2,28	2,28	..	5,24	5,24
5	Dairy development	..	34,95	34,95	42,06	..	42,06	32,71	..	32,71
6	Forest	..	11,65	11,65	14,63	..	14,63	19,28	..	19,28
7	Fisheries	..	12,50	12,50	10,44	..	10,44	8,26	..	8,26
8	Warehousing and marketing	..	3	3	3	..	3	2	..	2
Total for I		1,20,05	27,37	1,47,42	1,36,04	22,48	1,58,52	1,69,46	22,20	1,91,66
II. Co-operation and Community Development—										
1	Co-operation	..	29,03	4,23	41,27	..	41,27	32,40	..	32,40
2	Community development	..	..	5,03	..	50	50	..	23	23
Total for II		29,03	9,26	38,29	41,27	50	41,77	32,40	23	32,63

(Rs. in '000')

III. Irrigation and Power—										
1 Medium irrigation ..	30,25	..	30,25	38,93	..	38,93	77,01	..	77,01	..
2 Power ..	62,23	..	62,23	82,41	..	82,41	1,16,77	..	1,16,77	..
Total for III	92,48	..	92,48	1,21,34	..	1,21,34	1,93,78	..	1,93,78	..
IV. Industry and Mining—										
1 Small-scale industries ..	42,99	2,44	45,43	27,92	..	27,92	17,09	..	17,09	..
Total for IV	42,99	2,44	45,43	27,92	..	27,92	17,09	..	17,09	..
V. Transport and Communications—										
1 Road development ..	46,39	20,46	66,85	80,40	20,76	1,01,16	1,84,96	27,91	2,12,87	..
2 Tourism ..	1,63	..	1,63	..	..	..	..	..	..	..
Total for V	48,02	20,46	68,48	80,40	20,76	1,01,16	1,84,96	27,91	2,12,87	..
VI. Social Services—										
1 General Education ..	20,03	28,83	48,86	4,88	55,63	60,51	5,51	98,56	1,04,07	..
2 Technical Education ..	1,07	..	1,07	6,09	..	6,09	11	..	11	..
3 Medical—										
(a) Medical and Nursing	1,87	..	1,87	5,17	..	5,17	7,11	..	7,11	..
(b) Public health ..	5,53	22,66	8,19	7,39	14,16	21,55	4,38	14,30	18,68	..
(c) Water supply ..	85,17	11,18	96,35	65,90	1,91	67,81	1,05,25	3,33	1,08,58	..
4 Nutrition programme ..	..	80	80	..	62	62	..	93	93	..
5 Housing ..	17,62	6,72	24,34	7,62	16,20	23,82	20,30	18,06	38,36	..
6 Urban development ..	5,00	..	5,00	5,00	1	5,00	4,06	..	4,06	..
7 Backward class welfare	..	34,03	34,03	36,95	10,09	47,04	37,59	9,81	47,40	..
8 Social welfare ..	..	38	38	65	..	65	58	..	58	..
9 Labour and labour welfare	9,24	..	9,24	10,16	..	10,16	15,59	..	15,59	..
Total for VI	1,45,53	1,04,60	2,30,13	1,49,81	98,62	2,48,42	2,00,48	1,44,99	3,45,47	..

TABLE No. 19—*contd.*

Serial No.	Development Head/Sub-head	1976-77			1977-78			1978-79			(Rs. in '000')
		State Sector	Local Sector	Total	State Sector	Local Sector	Total	State Sector	Local Sector	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
<i>VII. Miscellaneous programme—</i>											
1	Publicity and rural broadcasting ..	73	25	98	67	..	67	85	..	85	
2	Employment guarantee scheme ..	2,36,24	..	2,36,24	2,41,21	..	2,41,21	2,69,26	..	2,69,26	
	Total for VII ..	2,36,97	25	2,37,22	2,41,88	..	2,41,88	2,61,11	..	2,61,11	
	Grand Total ..	7,15,07	1,64,38	8,59,45	7,98,66	1,42,36	9,41,01	1,05,928	1,95,33	12,54,61	

B. CENTRALLY SPONSORED SCHEMES

1	Agricultural programme ..	..	6,40	6,40	..	14	14	..	6,60	6,60	
2	Co-operative and community development ..	..	..	..	..	..	..	..	..	..
3	Irrigation and power ..	..	..	..	..	..	..	49	..	49	
4	Industry and mining ..	..	..	..	..	..	..	..	..	..
5	Transport and communications ..	..	..	..	8	..	8	..	..	..

<i>Social Services--</i>										
1	General education	..	..	20,41	20,41	..	..	..	..	..
2	Technical education	..	..	..	..	..	..	..	..	..
3	Public health	..	65	55,88	56,53	5,47	..	5,47	11,43	11,43
4	Water supply and drainage	..	..	..	..	..	..	..	..	..
5	Housing	..	..	..	..	..	..	..	..	..
6	Urban development	..	..	..	..	..	..	..	..	..
7	Backward Class Welfare	..	..	..	..	..	..	..	..	..
8	Social welfare	..	..	3,84	3,84	..	10,50	10,50	8,60	8,60
9	Labour and labour welfare	..	..	..	..	..	..	..	..	..
10	Total for social services	..	65	80,13	80,78	5,47	10,50	15,97	20,03	20,03
	Miscellaneous	..	..	55,48	55,48	..	..	..	..	..
Total for Centrally Sponsored Schemes										
..	65	2,22,14	2,23,44	5,55	21,14	32,16	40,55	6,60	47,15	47,15
Grand Total A + B										
..	7,15,72	3,86,52	10,82,89	8,04,21	1,63,50	9,73,17	10,99,83	2,01,93	13,01,78	13,01,78

Source : Collector's Office, Thane.

TABLE No. 20—IMPORTANT PHYSICAL ACHIEVEMENTS UNDER PLAN DURING 1977-78 AND 1978-79 IN THANE DISTRICT

Serial No.	Development Head/ Sub-head	Item	Unit	Physical Achievement	
				1977-78	1978-79
(1)	(2)	(3)	(4)	(5)	(6)
<i>I. Agricultural Programme</i>					
1	Agricultural production ..	Area covered by pesticides and raticides.	Hectares	15,232	10,778
2	Minor irrigation ..	Irrigation works ..	No.	5	..
3	Animal husbandry ..	Veterinary Dispensaries ..	No.	2	1
4	Dairy development ..	Subsidy to milk producers ..	No. of societies.	3	..
5	Fisheries ..	(1) Stocking of fish ..	Lakh	61.20	62.95
		(2) Netting ..	Lakh kg.	3	2.50
		(3) Mechanisation of fishing engines.	No.	4	20
		(4) Nylon ..	Kg.	5,337	1,741
		(5) Monofilament ..	Kg.	113.3	..
		(6) Oil (H.S.D.)	Litre	100.13	10.00
6	Forest ..	(1) Fodder camps and C.D.	Lakh hect.	100	223
<i>II. Co-operation and C.D.</i>					
1	Co-operation ..	(1) Assistance to Agril. processing societies.	No.	1	..
		(2) Labour contract societies	No.	43	14
2	Community development	(1) C. D. Blocks	No.	4	..
<i>III. Irrigation and Power</i>					
		(1) Villages electrified ..	No.	89	10 Hamlets
		(2) Pump-sets installed	No.	100	..
<i>IV. Social Services</i>					
1	Education ..	(1) Book banks	No. of books	15,328	3,767
		(2) Scholarships to students in Junior Colleges.	No.	93	91
		(3) Scholarships to students in Senior Colleges.	No.	8	..
		(4) Backward class hostels	No.	1	1
2	Housing ..	(1) Roofing of huts	No.	1,620	50
3	Welfare of backward classes	(1) Scholarships to B. C. students in middle schools	No.	287	310
		(2) Irrigation wells ..	No.	25	13
		(3) Finance for group housing of B. C.	No. of houses	259	266
4	Social Welfare ..	(1) G.I.A. to aged and infirm for construction of house	No.	..	1
<i>V. Transport and Communications</i>					
		(1) Roads improved ..	Km.	4.91	1.01
		(2) Tarring ..	Km.	..	2.81
		(3) Cross Drainage works ..	No.	..	8
		(4) Small bridges ..	No.	3	..
		(5) New roads ..	Km.	..	4.44
		(6) H. P. drain ..	No.	..	53

Source : District Planning and Development Council, Thane.

TABLE No. 21—TREND IN SELECTED INDICATORS OF ECONOMIC DEVELOPMENT, THANE DISTRICT

Serial No.	Item	Unit	Year	
			1974-75	1977-78
(1)	(2)	(3)	(4)	(5)
<i>I. Agriculture and Irrigation</i>				
1	Area under forests ..	.. Hectare	.. 37,16,000	37,10
2	Cultivable area ..	.. Hectare	.. 30.49	3,372
3	Cultivable area per agricultural worker.	Hectare	.. 0.06	....
4	Gross cropped area ..	.. Hectare	.. 2,02,274	2,58,020
5	Net Cropped Area—			
	(a) Total ..	.. Hectare	.. 1,19,115	2,46,345
	(b) Foodgrains ..	.. Hectare	.. 1,79,603	1,94,119
	(c) Sugarcane ..	.. Hectare	.. 83	35
	(d) Groundnut ..	.. Hectare	.. 190	248
6	Net area sown per agricultural worker.	Per cent	.. 0.39	0.55
7	Percentage of area sown more than once to net area sown	Per cent	.. 0.69	0.33
8	Gross irrigated area ..	.. Hectare	.. 4,035	7,258
9	Percentage of gross irrigated area to gross cropped area.	Per cent	.. 3.38	2.81
10	Net irrigated area ..	.. Hectare	.. 4,035	6,520
11	Area irrigated by canal ..	.. Hectare	.. Nil	90
12	Area irrigated by wells ..	.. Hectare	.. 3,567	3,629
13	Area irrigated by other sources	Hectare	468	2,801
14	Area irrigated under—			
	(a) Foodgrains ..	.. Hectare	.. 870	596
	(b) Sugarcane ..	.. Hectare	.. 65	35
	(c) Groundnut ..	.. Hectare	.. Nil	Nil
	(d) Fruit ..	.. Hectare	.. 1,160	3,919
<i>II. Factory employment</i>				
1	Working factories ..	.. No.	.. 1,143	1,271
2	Average daily employment ..	.. No.	.. 1,22,368	1, 33,324
3	No. of workers employed in registered factories per lakh of population.	No.	.. 5,363	5,842

TABLE No. 21—*contd.*

Serial No. (1)	Item (2)	Unit (3)	Year	
			1974-75 (4)	1977-78 (5)
III. Electricity				
1	Electricity consumed ..	KWH million	1,120	1,206
2	Towns electrified ..	KWH million	24	24
3	Villages electrified ..	No. ..	765	812
IV. Co-operative Societies				
1	(a) Agricultural credit ..	No. ..	680	580
	(b) Agricultural non-credit ..	No. ..	228	219
2	Membership—			
	(a) Agricultural credit ..	No. ..	88,959	10,985
	(b) Agricultural non-credit ..	No. ..	47,010	44,383
3	Working capital—			
	(a) Agricultural credit ..	Rs. in lakh ..	3.88	4.11
	(b) Agricultural non-credit ..	Rs. in lakh ..	5.33	5.04
V. Transport and Communications				
1	Road length (extra municipal) ..	Km. .	3,314	5,000
2	(a) Length of roads per 1000 km. ..	Km. .	347	523
	(b) Length of roads per lakh of population ..	Km. .	145	219
3	Total railway length ..	Km. .	212	212
VI. Community Development				
1	C.P.A. Pattern blocks ..	No. .	2,475	2,475
2	(a) Villages covered ..	No. ..	1,638	1,638
	(b) Towns having population less than one lakh. ..	No. ..	22	22
3	Population covered ..	No. ..	16,19,316	16,19,316
VII. Miscellaneous				
1	Banking offices ..	No. ..	206	....

Source : Directorate of Economics and Statistics, Government of Maharashtra, Bombay.

TABLE No. 22—LAND REVENUE COLLECTION

Year	Particulars		
	Current year consolidated demand of land revenue excluding collection of last year	Gross consolidated demand of land revenue	Actual collection
	Rs.	Rs.	Rs.
1978-79	2,117,000	2,278,000	2,098,000

TABLE No. 23—REGISTRATION OF DOCUMENTS

Year	Registration Offices	Total income	Total expenditure
		Rs.	Rs.
1978-79	8	1,004,449	244,986

REGISTRATION OF MARRIAGES

Year	Marriages registered under—		Fees
	B. R. M. Act*	S. M. Act*	
1979	1,775	179	Rs. 9,995

TABLE No. 24—STRENGTH OF POLICE AND POLICE STATIONS, 1978

Particulars					No.
Superintendents .. ..	..	..	..	..	2
Deputy Superintendents .. ..	..	..	..	..	6
Inspectors .. ..	..	..	..	..	34
Sub-Inspectors .. ..	..	..	..	..	189
Jamadars .. ..	..	..	..	..	54
Head Constables .. ..	..	..	..	..	1,144
Constables .. ..	..	..	..	..	3,854
				Total ..	5,283
Police Stations .. ..	..	..	..	..	42
Out-posts .. ..	..	..	..	..	43

* B.R.M.—Bombay Registration of Marriages Act.

* S.M.—Special Marriages Act.

TABLE No. 25.—NO. OF SCHOOLS IN THANE DISTRICT, 1979

	No. of Schools (1)	No. of Students (2)	No. of Teachers (3)
Primary Schools	2,019*	237,878	7,813
Secondary Schools	240	151,214	5,032

*Schools run by Zilla Parishad, Thane and the Central and State Governments.

TABLE No. 26—BLOCKWISE CLASSIFICATION OF PRIMARY AND SECONDARY SCHOOLS, 1979

Blocks (1)	Primary Schools (2)	Secondary Schools (3)
Bhiwandi ..	217	25
Dahanu ..	297	14
Jawhar ..	133	4
Kalyan ..	134	43
Mokhada ..	102	3
Murbad ..	222	8
Palghar ..	241	25
Shahapur ..	239	12
Talasari ..	63	1
Thane ..	106	41
Ulhasnagar ..	89	31
Vasai ..	109	25
Vada ..	167	8
Total ..	2,119	240

TABLE No. 27—STATISTICS OF FAMILY PLANNING

Year	Operations				
	Vasectomy	Tubectomy	Total	IUCD insertions	Condoms supplied (in dozen)
(1)	(2)	(3)	(4)	(5)	(6)
1979 ..	3,667	6,636	10,303	1,278	12,352

TABLE No. 28—BLOCK-WISE STERILISATIONS, 1979-80

Block						Total sterilisations
Mokhada	..	..	..	..	..	266
Thane	..	..	..	..	..	2,004
Shahapur	..	..	..	..	..	582
Wada	..	..	..	..	..	303
Kalyan	..	..	..	..	..	1,117
Bhiwandi	..	..	..	..	..	578
Talasari	..	..	..	..	..	192
Ulhasnagar	..	..	..	..	..	869
Jawhar	..	..	..	..	..	352
Vasai	..	..	..	..	..	968
Murbad	..	..	..	..	..	295
Dahanu	..	..	..	..	..	691
Palghar	..	..	..	..	..	1,386
Total ..						9,603

TABLE No. 29—NUMBER OF DEATHS, 1979

Tuberculosis	..	..	..	..	..	520
Pneumonia	..	..	..	..	..	138
Dysentery	..	..	..	..	..	293
Cancer	..	..	..	..	..	133
Respiratory diseases	..	..	..	..	..	1,114

TABLE No. 30—NUMBER OF BEDS AND PATIENTS TREATED, 1978

			Male	Female	Children
Patients Treated —					
Indoor	..	..	22,000	28,000	15,000
Outdoor	..	..	4,98,000	4,54,000	4,56,000
Beds	..	..	1,548	1,287	55

TABLE NO. 31—PERSONS TREATED IN PRIMARY HEALTH CENTRES,
1979-80

Centre		Persons treated			
		Male	Female	Children	Total
1. Belapur	..	5,094	5,978	7,785	18,857
2. Bhyandar	..	5,320	4,500	4,372	14,192
3. Goveli	..	4,286	6,439	7,741	18,466
4. Padgha	..	3,360	3,729	4,093	11,482
5. Kharbhav	..	1,492	1,735	2,736	5,663
6. Khardi	..	1,539	1,216	1,431	4,186
7. Gorhe	..	2,342	2,533	3,147	8,022
8. Parli	..	877	856	1,663	3,396
9. Vikramgad	..	7,405	3,784	2,200	13,339
10. Sukur	..	405	309	1,210	1,924
11. Sakharshet	..	1,950	1,600	3,010	6,550
12. Khodala	..	2,442	1,158	2,018	5,618
13. Navghar	..	3,789	5,972	6,322	16,083
14. Palghar	..	9,961	10,137	11,213	31,311
15. Mhasvan	..	1,721	2,180	3,195	7,096
16. Safala	..	1,532	1,575	1,712	4,819
17. Songata	..	689	708	1,260	2,657
18. Kasa	..	9,600	6,400	7,322	23,322
19. Vangaon	..	5,400	1,236	7,609	18,748
20. Saivan	..	980	7,66	882	2,628
21. Tatasari	..	10,324	8,927	11,782	31,033
22. Virar	..	11,598	9,002	4,242	24,825
23. Kasara	..	5,890	7,580	7,380	20,850
24. Vasai	..	7,371	9,435	8,290	25,096

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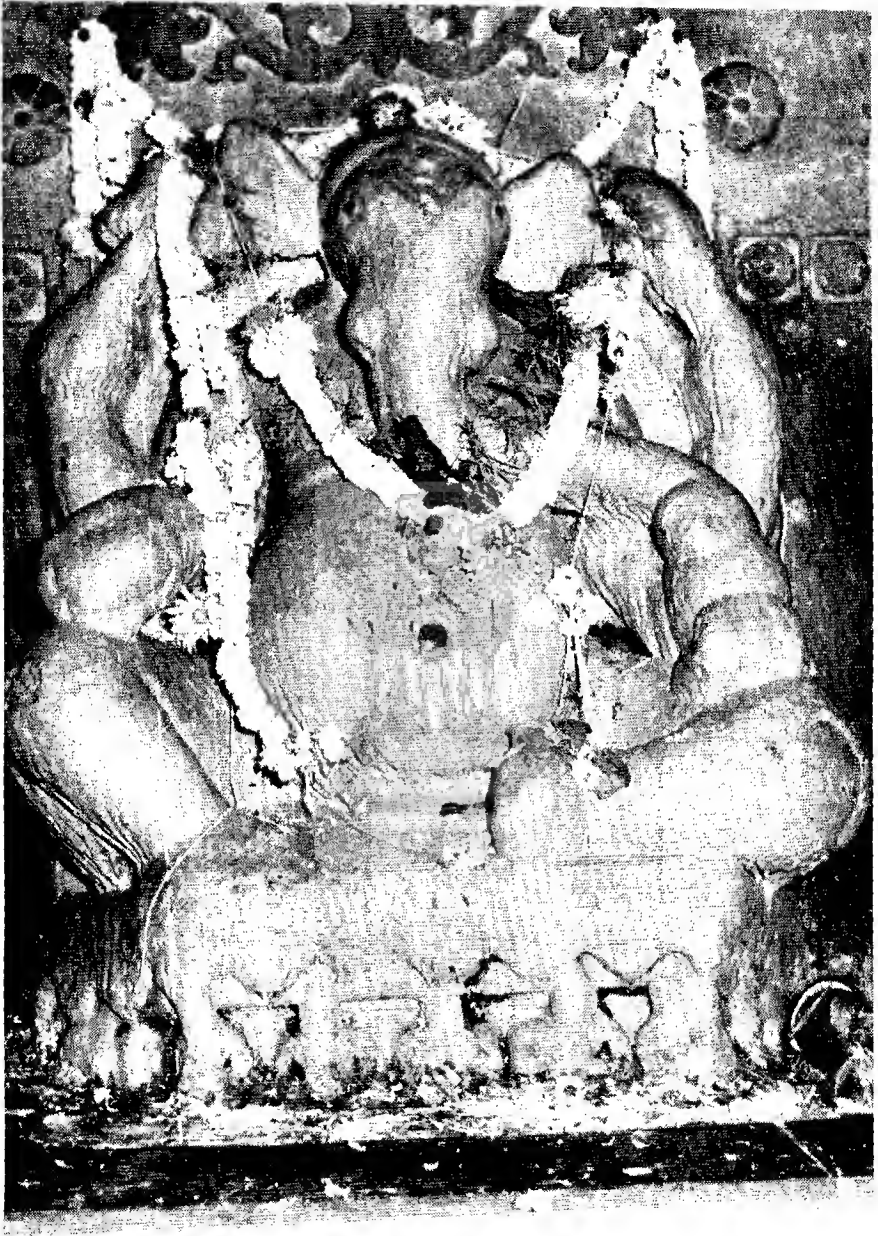
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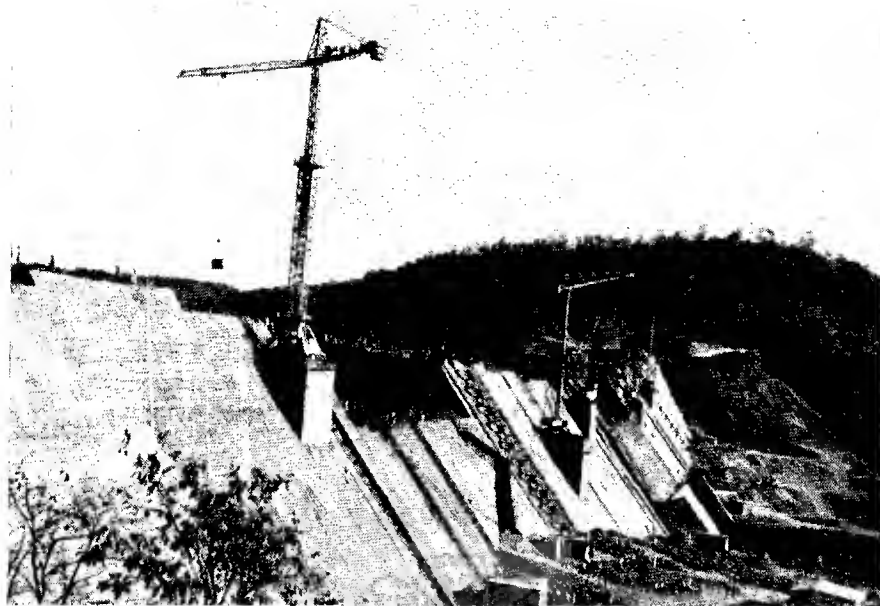
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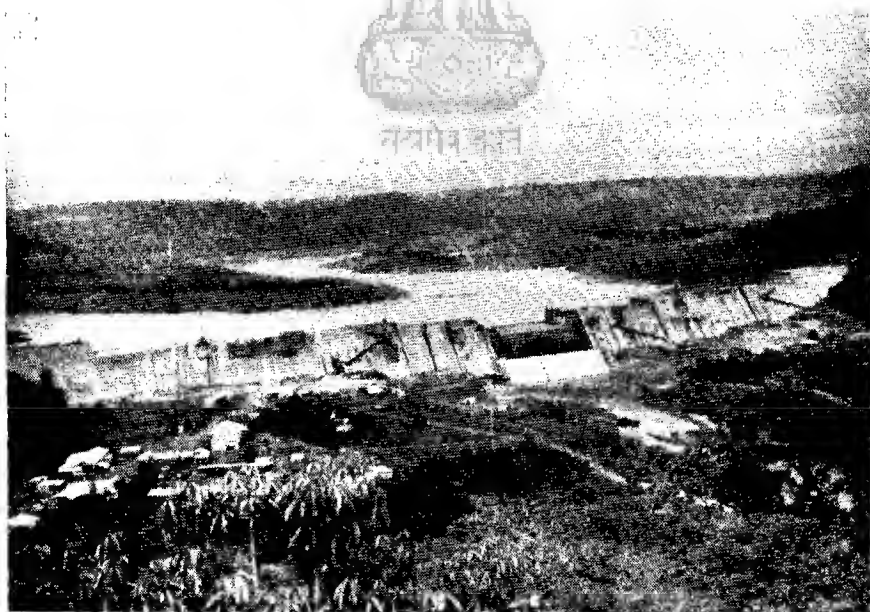
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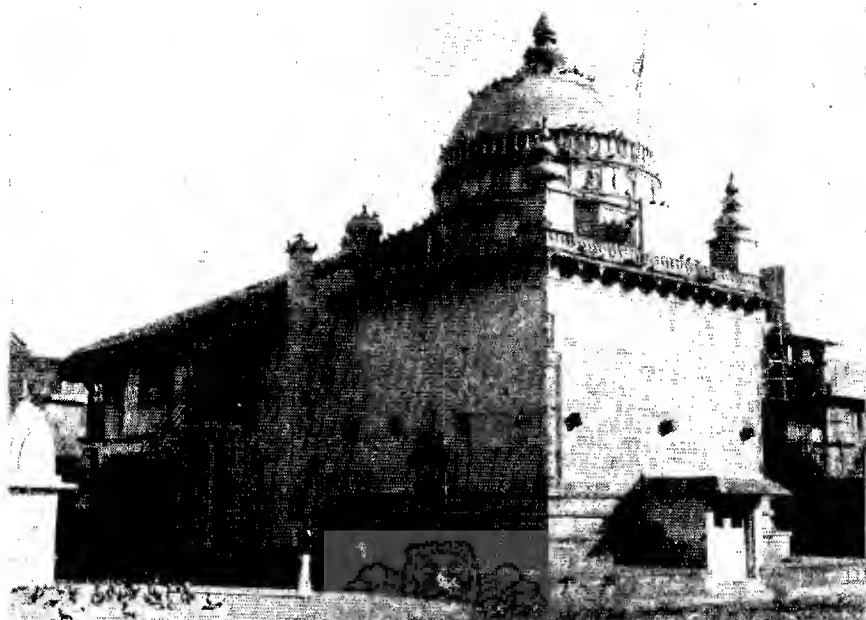
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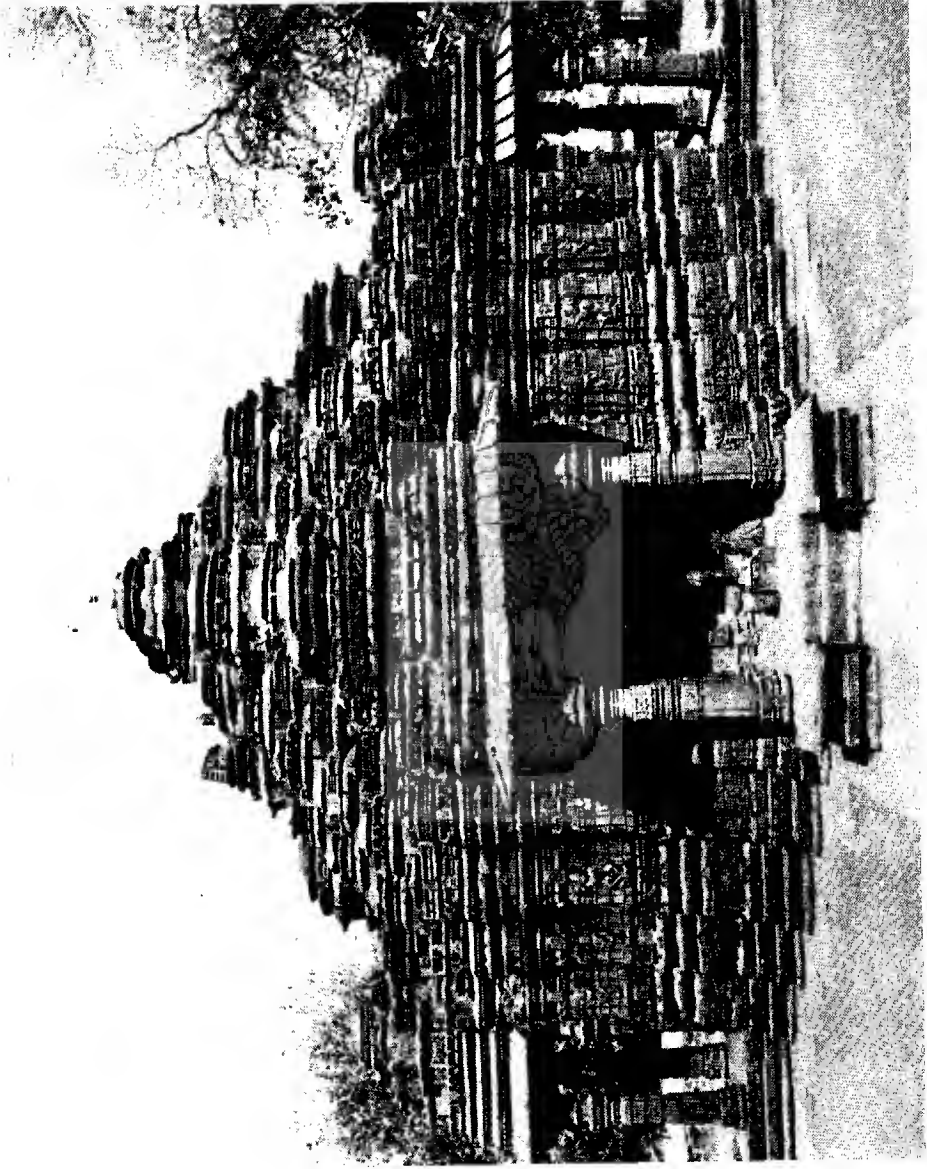
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